
TECHNICAL DOCUMENTATION

Prototype Documention

PROJECT: Micro-Q

PART : Front / Main PCB
REV : 1.1
DATE : 12.07.00

Document-Name: d_mqmb11.PDF

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Neustrasse 9 - D 53498 Waldorf



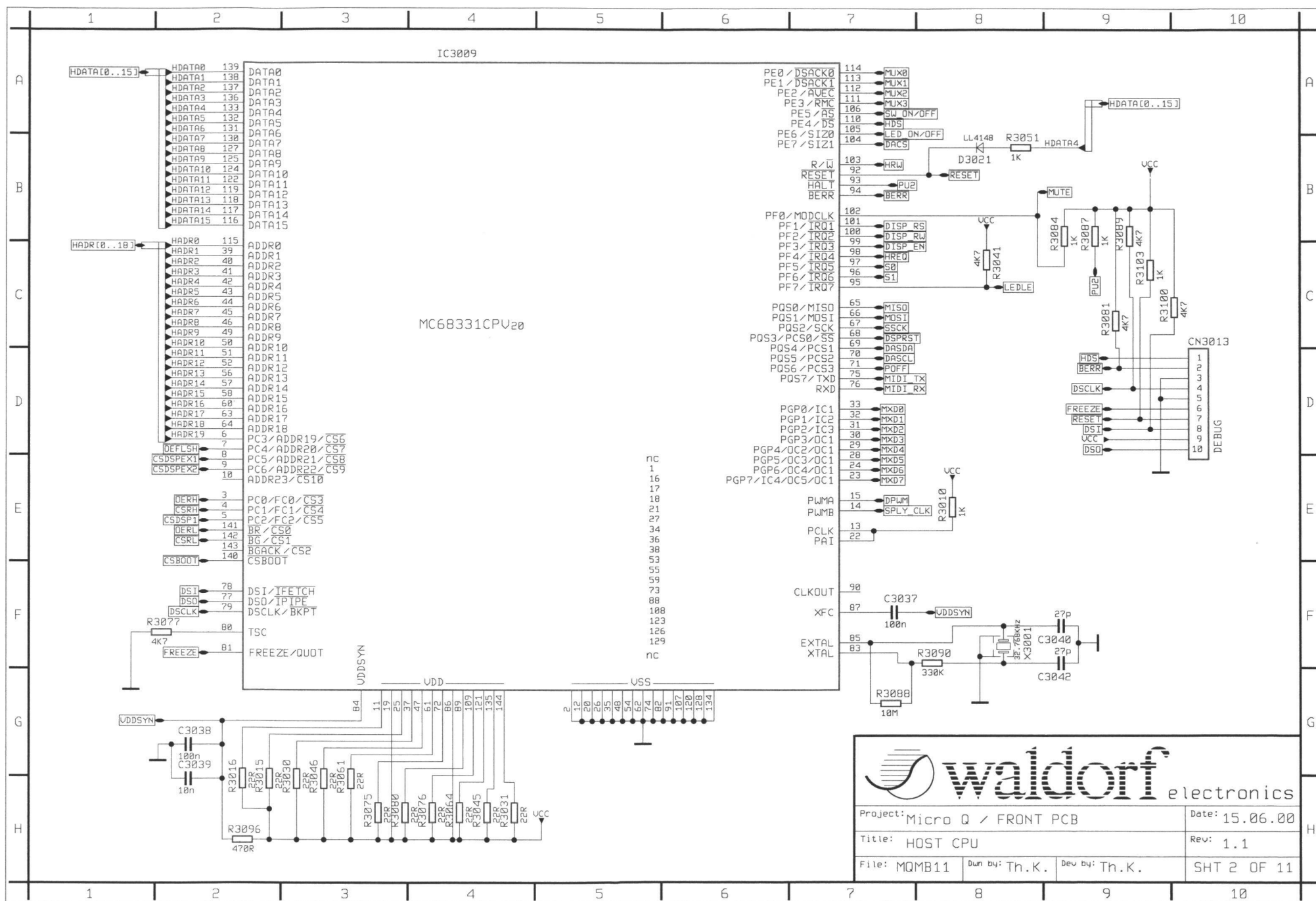
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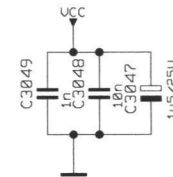
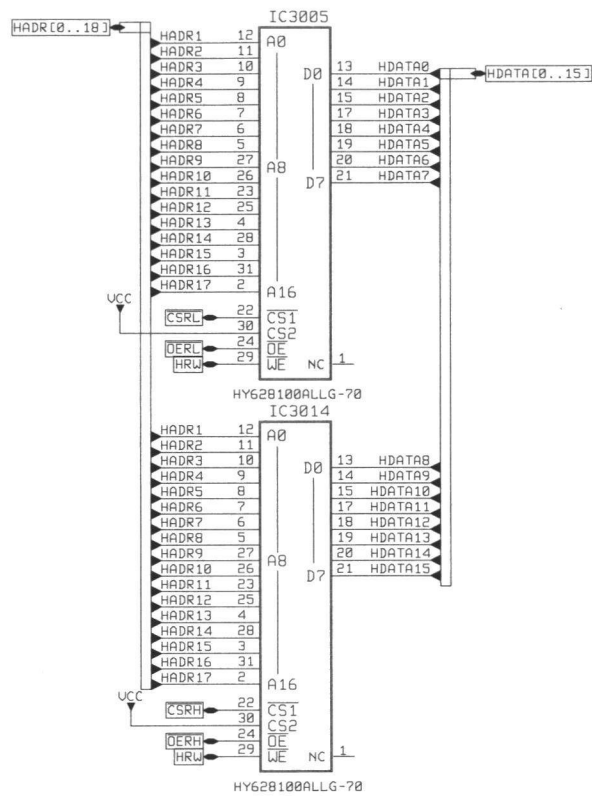
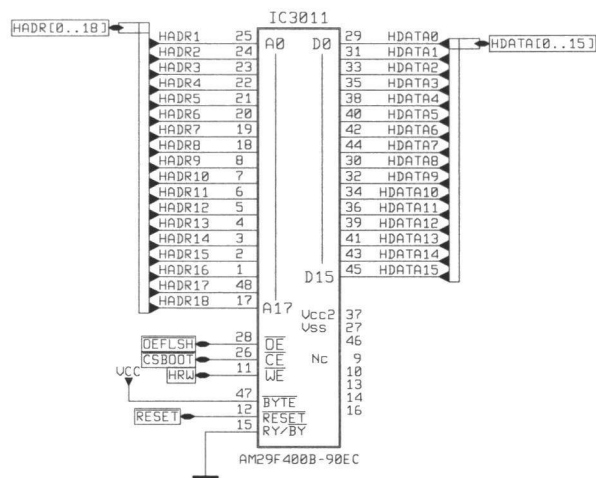
Content /Inhalt

Schematics / Schaltbilder

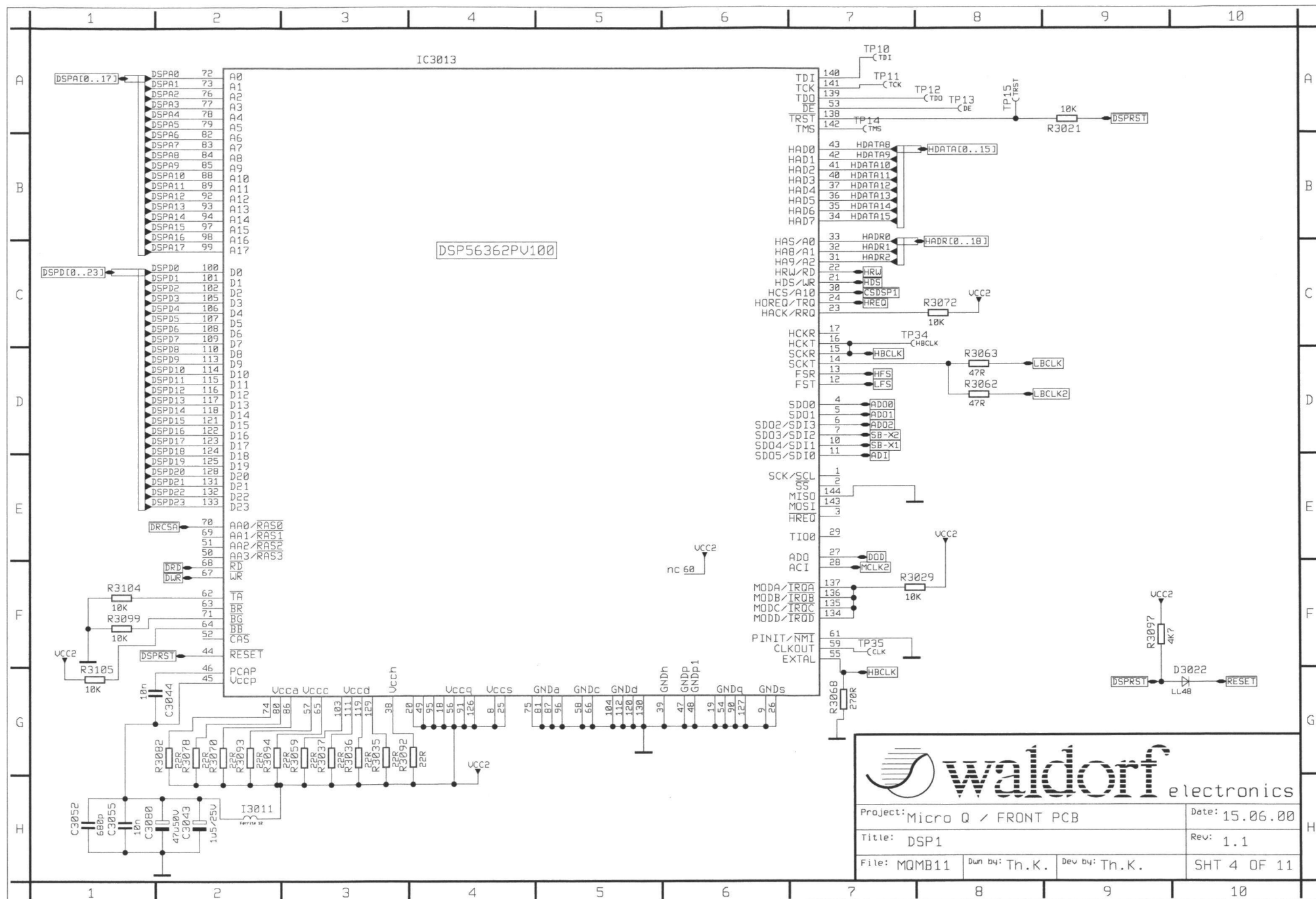
Component Layout / Bestückungsplan

Part List / Bauteilliste



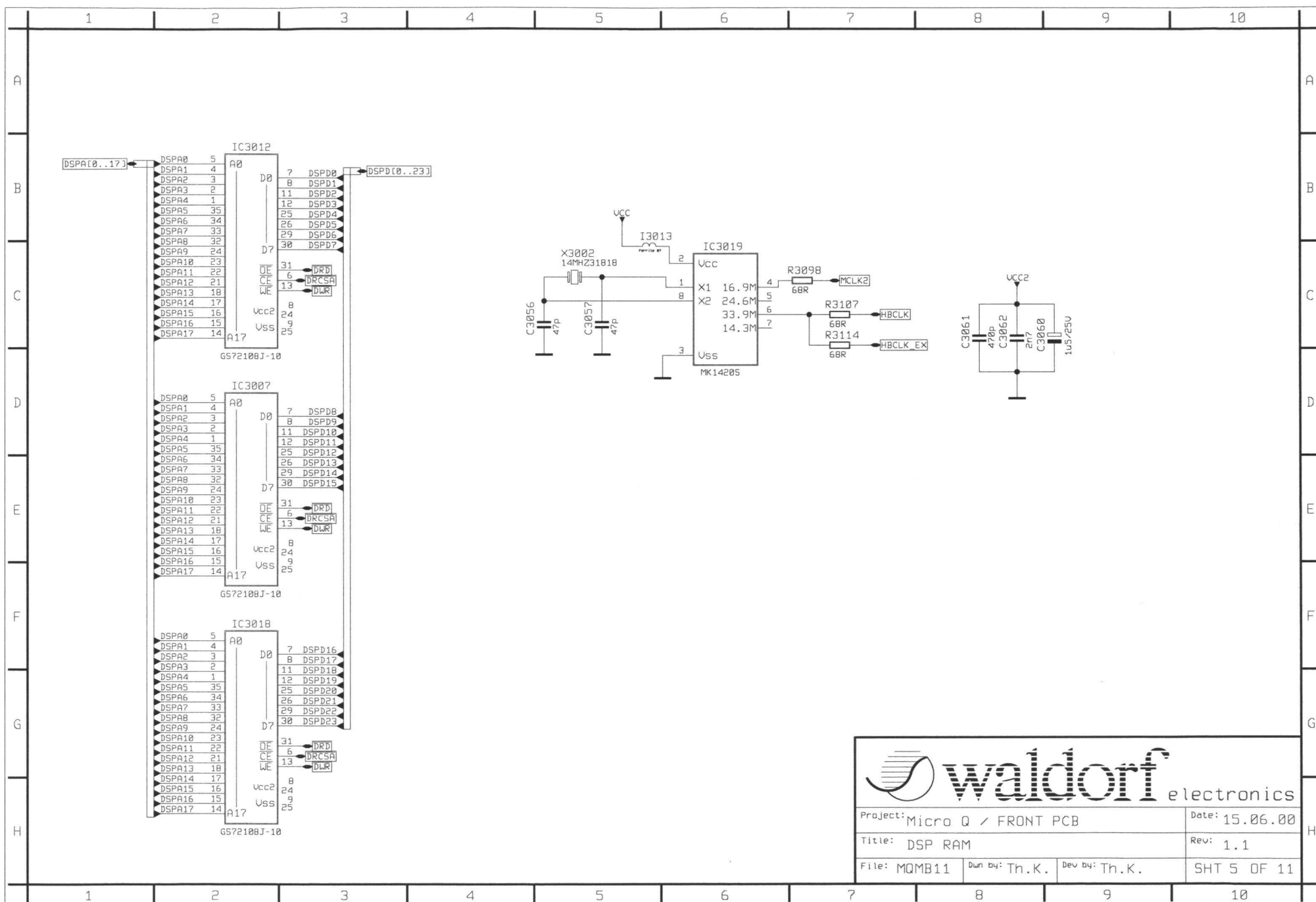


			
Project: Micro Q / FRONT PCB			Date: 15.06.00
Title: HOST RAM			Rev: 1.1
File: MQMB11	Own by: Th.K.	Dev by: Th.K.	SHT 3 OF 11

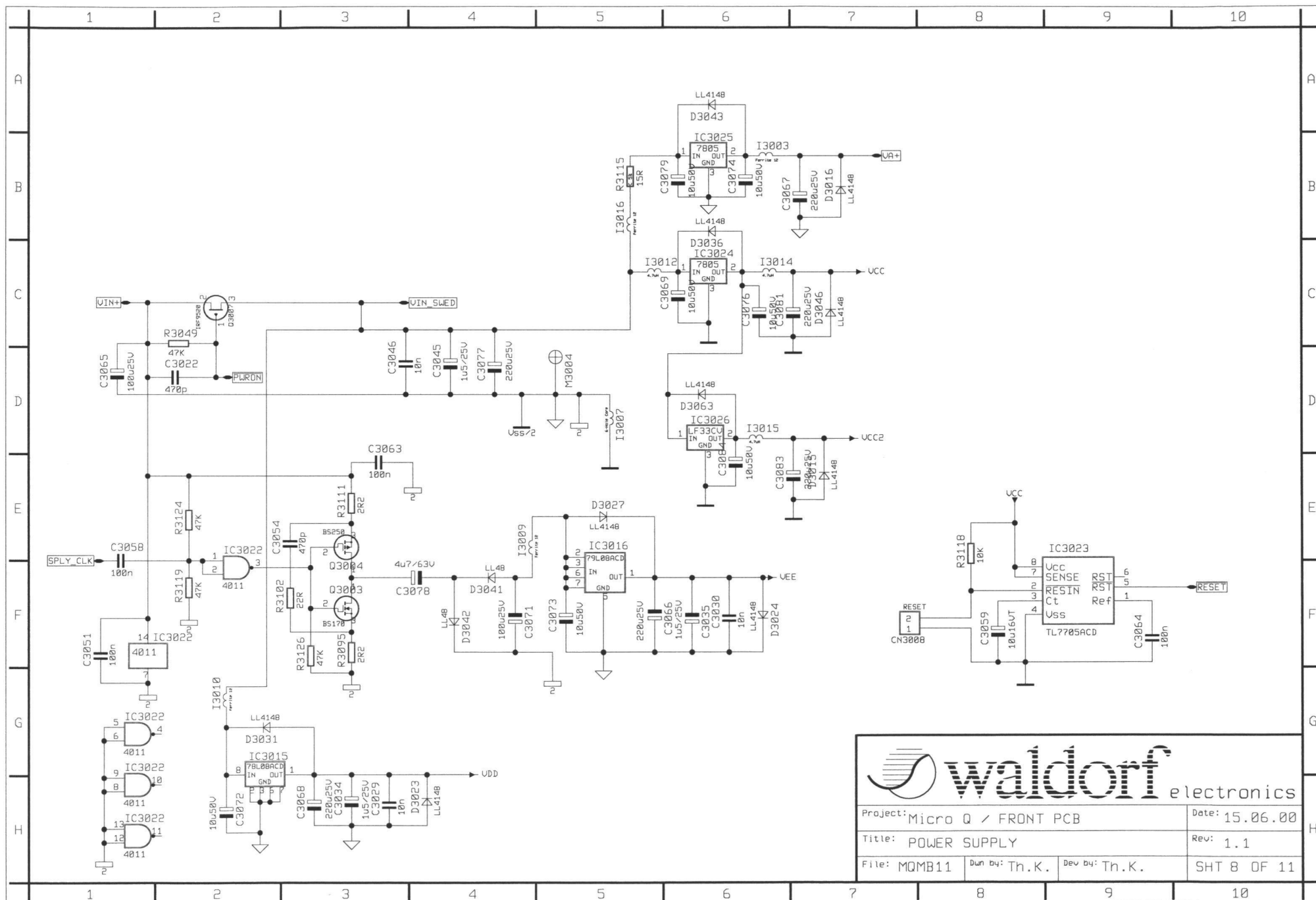



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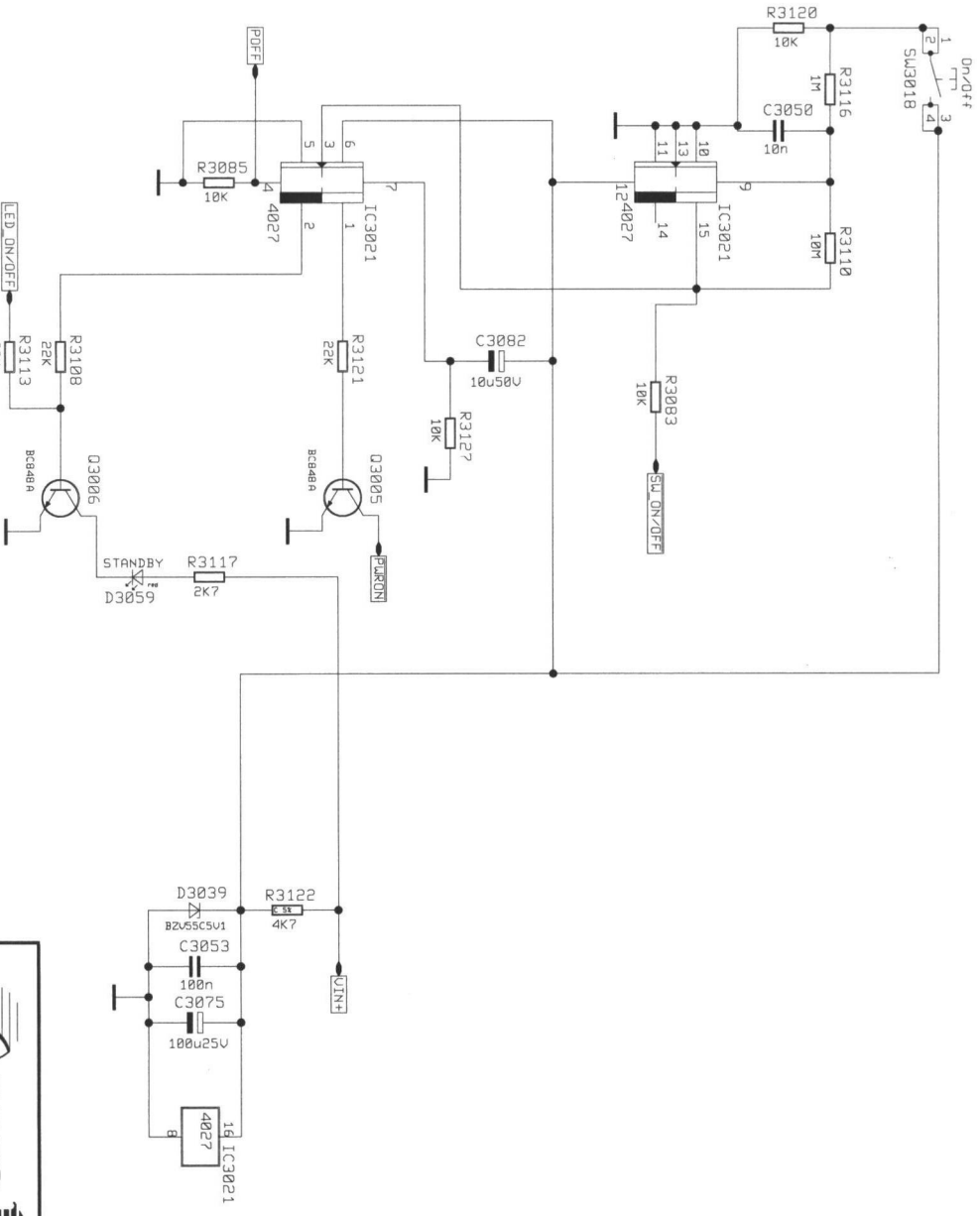
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Title: DSP1		Rev: 1.1
File: MQMB11	Drawn by: Th.K.	Dev by: Th.K.
		SHT 4 OF 11



			
Project: Micro Q / FRONT PCB			Date: 15.06.00
Title: DSP RAM			Rev: 1.1
File: MQMB11	Des By: Th.K.	Dev By: Th.K.	SHT 5 OF 11



			
Project: Micro Q / FRONT PCB			Date: 15.06.00
Title: POWER SUPPLY			Rev: 1.1
File: MQMB11	Drawn by: Th.K.	Dev by: Th.K.	SHT 8 OF 11



Project: Micro 0 / FRONT PCB

Title: STANDBY CIRCUITRY

File: M0MB11

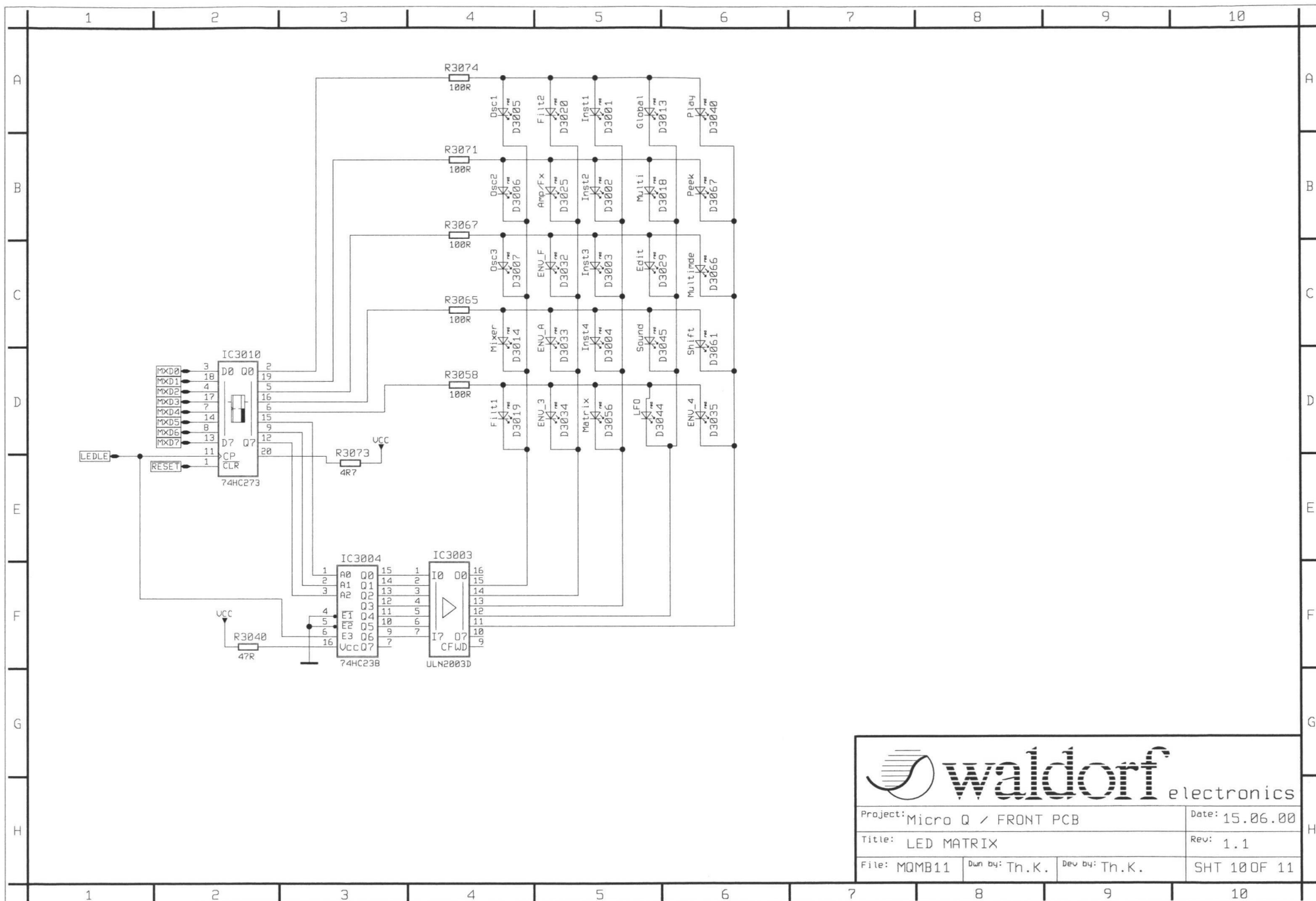
Date: 15.06.00


Rev: 1.1

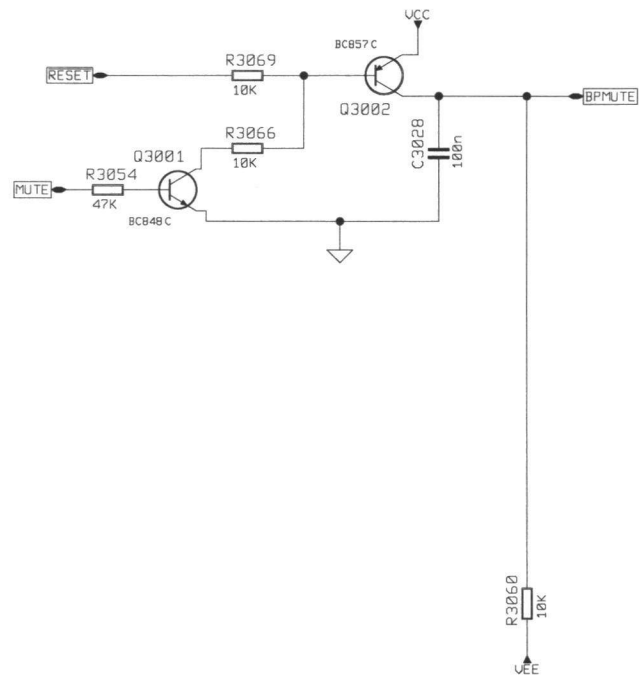
SHT 9 OF 11


Dev By: Th.K.

Dev By: Th.K.

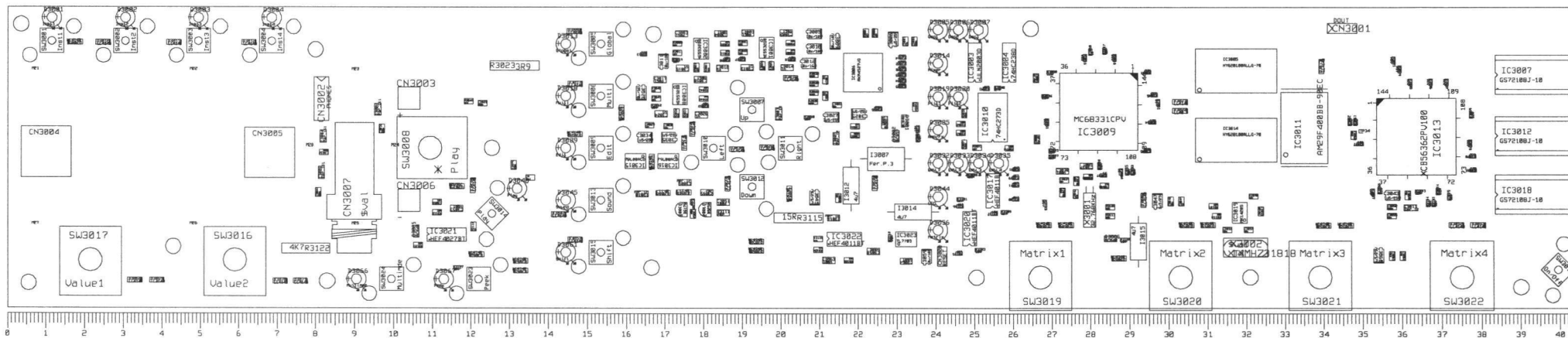


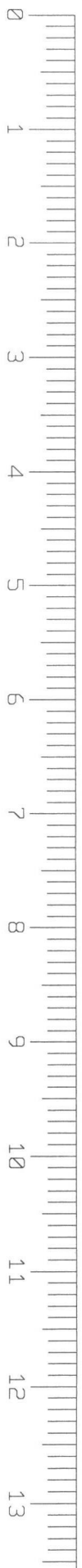
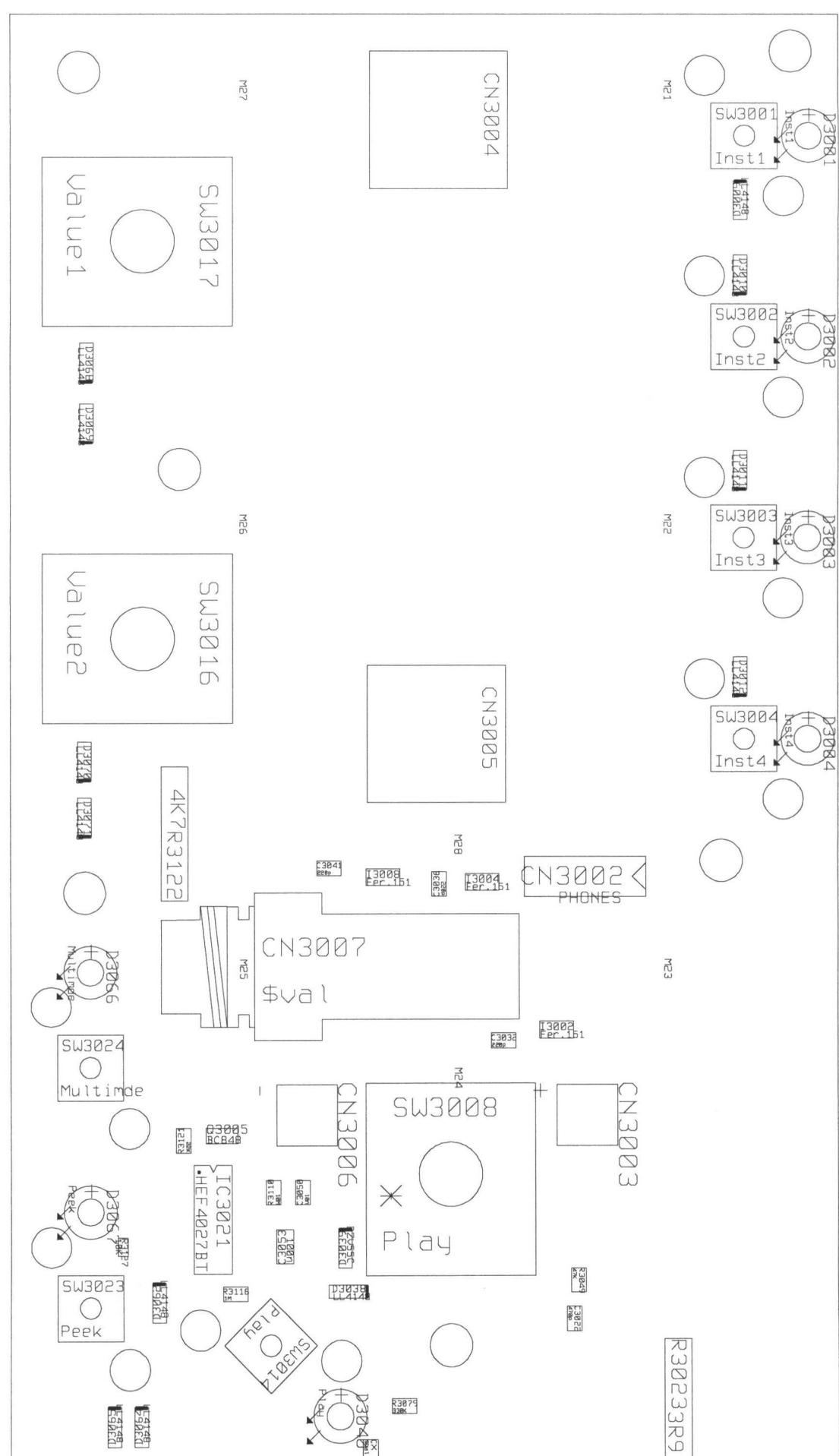
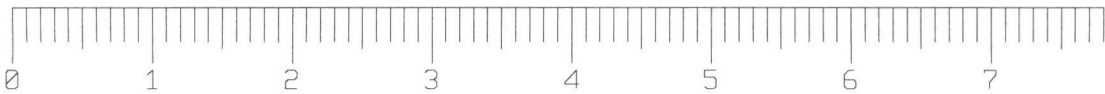
			
Project: Micro Q / FRONT PCB			Date: 15.06.00
Title: LED MATRIX			Rev: 1.1
File: MQMB11	Drawn by: Th.K.	Dev by: Th.K.	SHT 10 OF 11

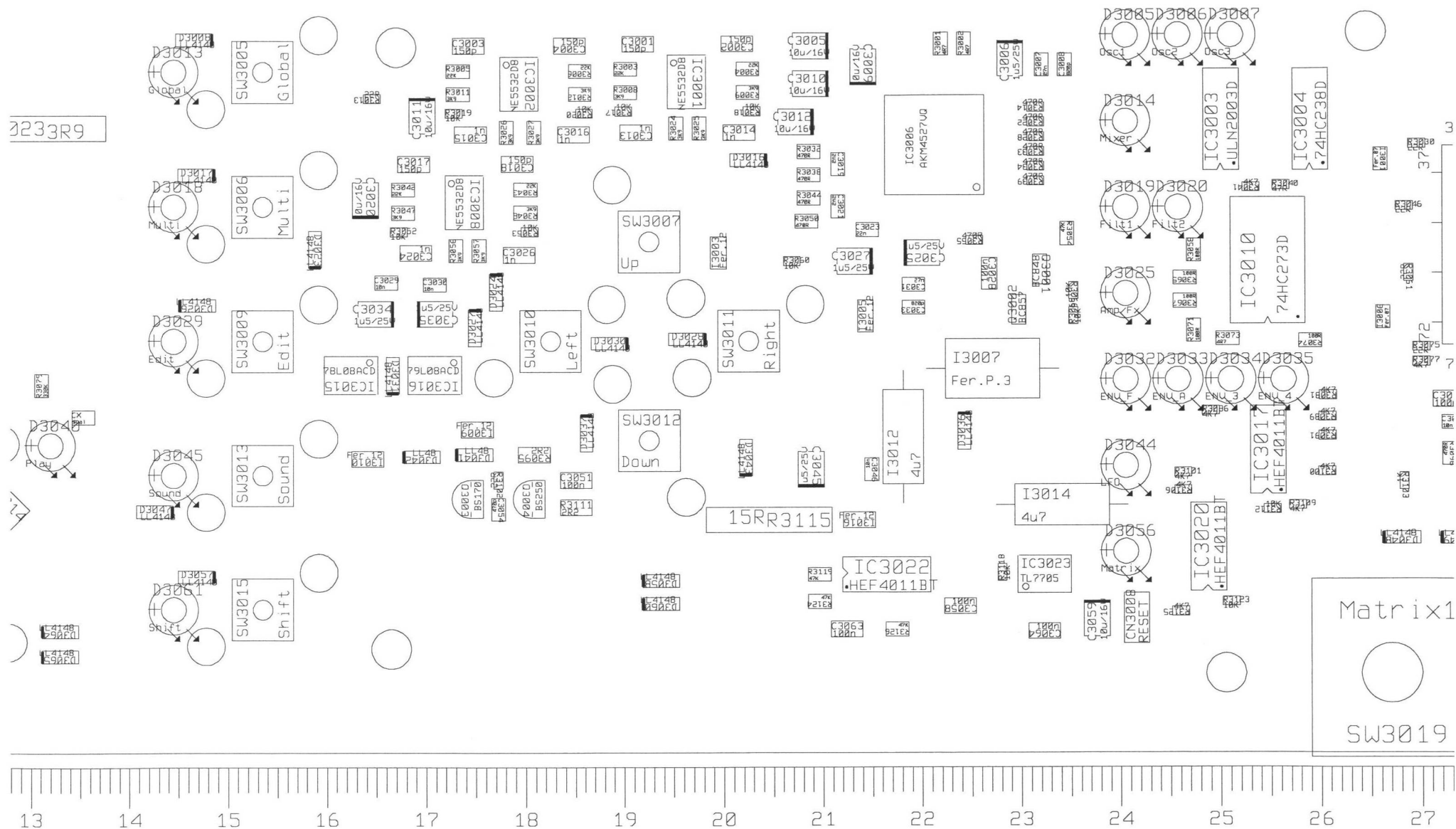


			
Project: Micro Q / FRONT PCB			Date: 15.06.00
Title: AUDIO OUTPUT MUTE			Rev: 1.1
File: MQMB11	Des by: Th.K.	Dev by: Th.K.	SHT 11 OF 11

PINF01
 Bestückungsplan MQMB11 22.06.00 Bauteilseite
 Leiterpl. Rev. 1.1 Bestückungsrev.1.1







DOUT
CN3001

MC68331CPU
IC3009

IC3005
HY628100ALLG-70

IC3014
HY628100ALLG-70

IC3011

AM29F400BB-90EC

XCB56362PV100
IC3013

IC3007
GS72108J-10

IC3012
GS72108J-10

IC3018
GS72108J-10

X3001
32.768KHZ

I3015

Matrix2

SW3020

IC3002
XTAL MHZ 1818 Matrix3

SW3021

Matrix4

SW3022

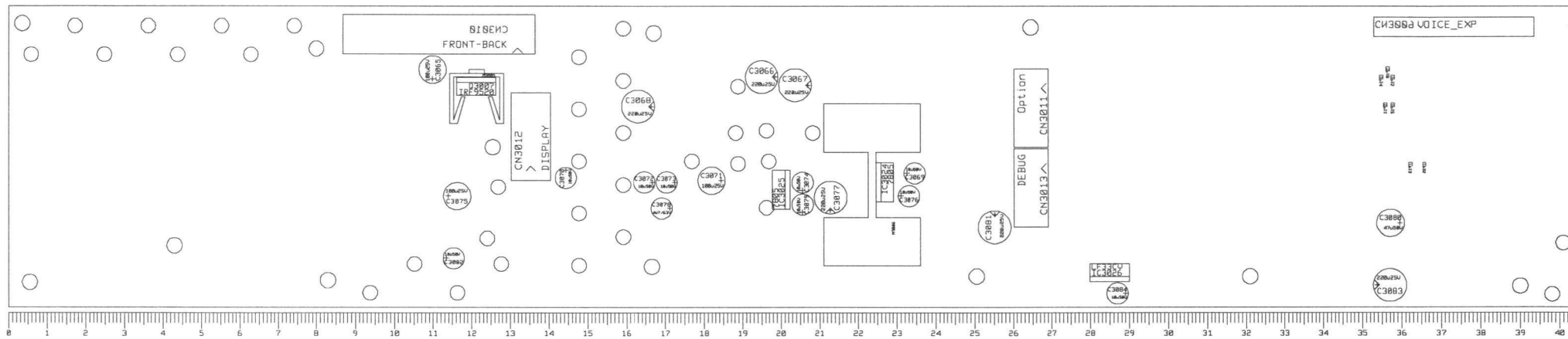
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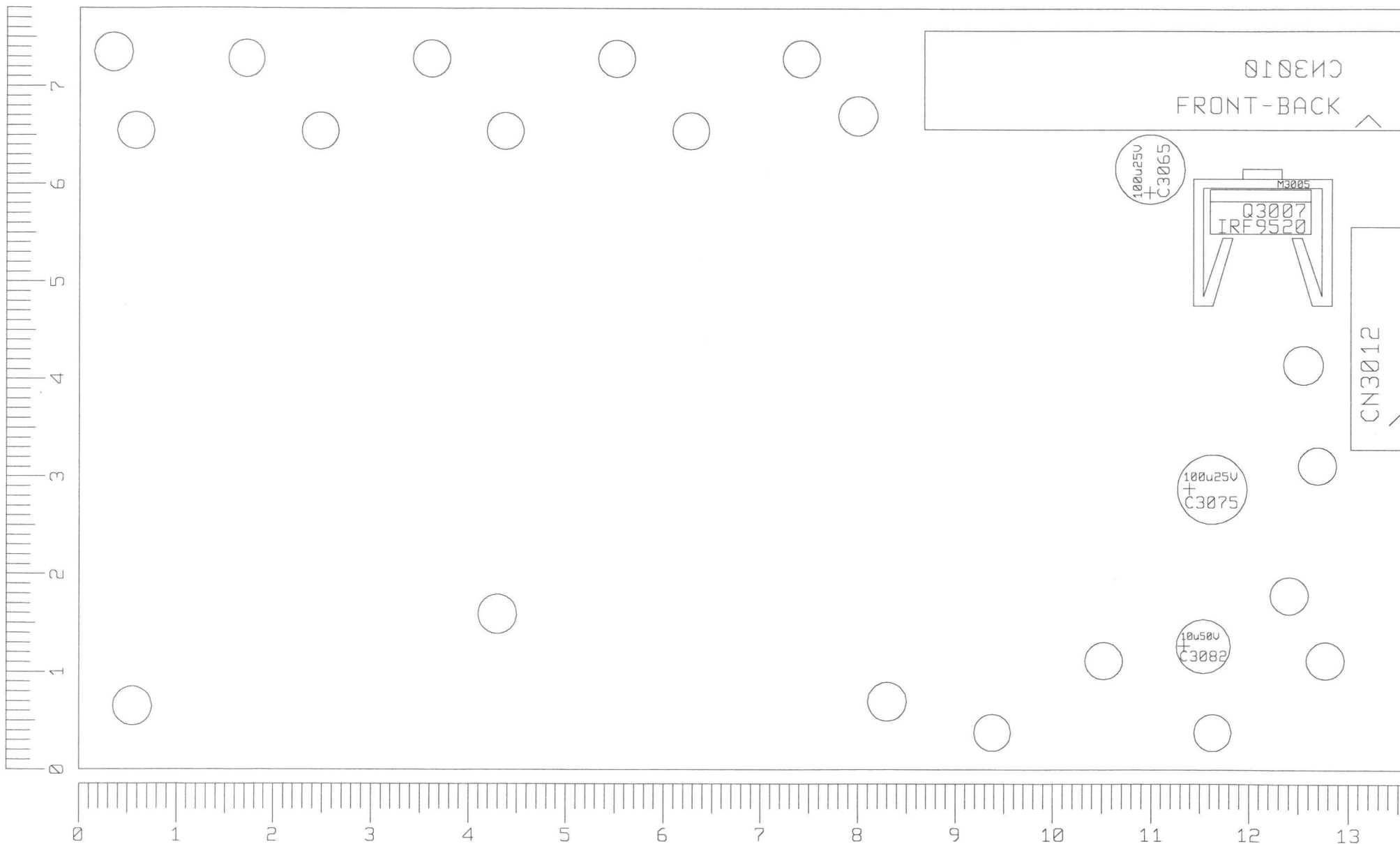
J3019

SW3018
On/Off

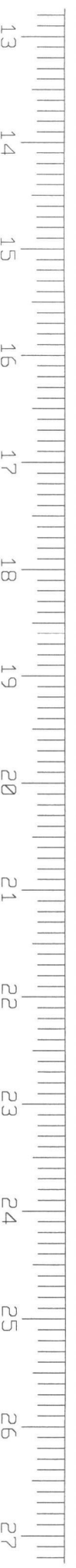
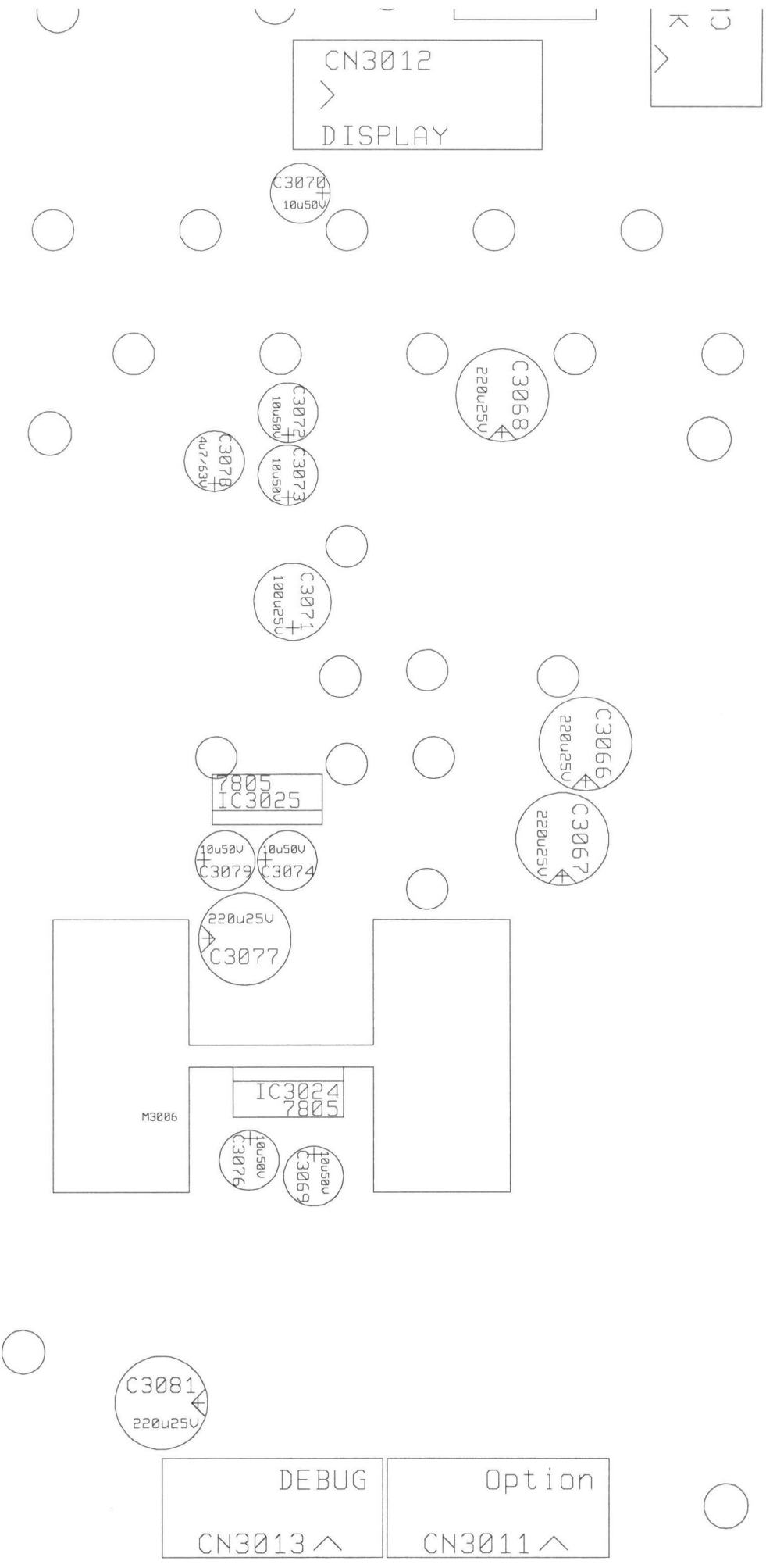
STANDBY

Bestückungsplan MQMB11 22.06.00
Leiterpl. Rev. 1.1 Bestückungsrev.1.1 Leiterseite





Bestückungsplan M0MB11 22.06.00
Leiterpl. Rev. 1.1 Bestückungsrev.1.1 Leiterseite





CN3013 ^ CN3011 ^

CN3000 VOICE_EXP



Lb18
Lb14

Lb15
Lb11

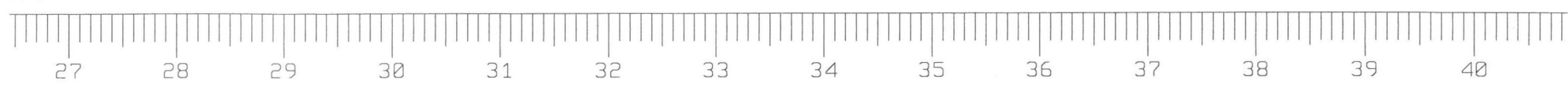
Lb32
Lb13

LF33CV
IC3026

C3084
10u50V

C3080
47u50V

220u25V
C3083



----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 1

ICs:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
IC3001	NE5532D8		HIGH PERFORM. DUAL OP-AMP	so8	196/	67
IC3002	NE5532D8		HIGH PERFORM. DUAL OP-AMP	so8	179/	67
IC3003	ULN2003D		DRIVER	so16	250/	63
IC3004	74HC238D		DECODER	so16	258/	63
IC3005	HY628100ALLG-70		SRAM 128Kx8 5V	sop321	317/	61
IC3006	AKM4527VQ		CODEC, AKM	qfp44	221/	61
IC3007	GS72108J-10		SRAM 256Kx8 3.3V 10ns	soj36_400	394/	60
IC3008	NE5532D8		HIGH PERFORM. DUAL OP-AMP	so8	173/	55
IC3009	MC68331CPV	20	68K MICROCONT.	qfp144	281/	51
IC3010	74HC273D		LATCH	so20	254/	49
IC3011	AM29F400BB-90EC		FLASH 256Kx16	tsop48	334/	46
IC3012	GS72108J-10		SRAM 256Kx8 3.3V 10ns	soj36_400	394/	44
IC3013	XCB56362PV100		MOT DSP	qfp144	363/	44
IC3014	HY628100ALLG-70		SRAM 128Kx8 5V	sop321	317/	43
IC3015	78L08ACD		REGULATOR	so8	162/	38
IC3016	79L08ACD		REGULATOR	so8	170/	38
IC3017	HEF4011BT		4-fach NAND	so14	254/	30
IC3018	GS72108J-10		SRAM 256Kx8 3.3V 10ns	soj36_400	394/	29
IC3019	MK1420S		Clock Generator	so8	318/	24
IC3020	HEF4011BT		4-fach NAND	so14	248/	20
IC3021	HEF4027BT		DUAL JK-FLIP FLOP	so16	113/	19
IC3022	HEF4011BT		4-fach NAND	so14	216/	17
IC3023	TL7705	ACD	RESET IC	so8	232/	17
IC3024	7805		REGULATOR	to220v	227/	32
IC3025	7805		REGULATOR	to220v	199/	30
IC3026	LF33CV		REGULATOR 3,3V	to220v	284/	9

TRANSISTORS:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
Q3001	BC848	C	NPN TRANSISTOR SMD	so23_3	231/	48
Q3002	BC857	C	PNP TRANSISTOR SMD	so23_3	229/	44
Q3003	BS170		N-FET	to92	174/	23
Q3004	BS250		P-FET	to92	180/	23
Q3005	BC848	A	NPN TRANSISTOR SMD	so23_3	105/	19
Q3006	BC848	A	NPN TRANSISTOR SMD	so23_3	284/	17
Q3007	IRF9520		POWER P-FET	to220v	121/	56

DIODES:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
D3008	LL4148		DIODE	MINIMELF_D	146/	71
D3009	LL4148		DIODE	MINIMELF_D	17/	68
D3010	LL4148		DIODE	MINIMELF_D	24/	68
D3011	LL4148		DIODE	MINIMELF_D	43/	68
D3012	LL4148		DIODE	MINIMELF_D	62/	68
D3015	LL4148		DIODE	MINIMELF_D	339/	62
D3016	LL4148		DIODE	MINIMELF_D	202/	59
D3017	LL4148		DIODE	MINIMELF_D	146/	58
D3021	LL4148		DIODE	MINIMELF_D	302/	53
D3022	LL48		SCHOTTKY-DIODE	MINIMELF_D	302/	51
D3023	LL4148		DIODE	MINIMELF_D	158/	50
D3024	LL4148		DIODE	MINIMELF_D	177/	46
D3026	LL4148		DIODE	MINIMELF_D	146/	45
D3027	LL4148		DIODE	MINIMELF_D	174/	42
D3028	LL4148		DIODE	MINIMELF_D	196/	41

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 2

DIODEs: (continued)

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
D3030	LL4148		DIODE	MINIMELF_D	188/	41
D3031	LL4148		DIODE	MINIMELF_D	166/	38
D3036	LL4148		DIODE	MINIMELF_D	224/	32
D3037	LL4148		DIODE	MINIMELF_D	186/	32
D3038	LL4148		DIODE	MINIMELF_D	120/	31
D3039	BZV55C	5V1	ZENER DIODE 0.5W SMD	MINIMELF_D	116/	31
D3041	LL48		SCHOTTKY-DIODE	MINIMELF_D	174/	30
D3042	LL48		SCHOTTKY-DIODE	MINIMELF_D	169/	29
D3043	LL4148		DIODE	MINIMELF_D	202/	29
D3046	LL4148		DIODE	MINIMELF_D	293/	27
D3047	LL4148		DIODE	MINIMELF_D	142/	24
D3048	LL4148		DIODE	MINIMELF_D	268/	21
D3049	LL4148		DIODE	MINIMELF_D	273/	21
D3050	LL4148		DIODE	MINIMELF_D	304/	21
D3051	LL4148		DIODE	MINIMELF_D	310/	21
D3052	LL4148		DIODE	MINIMELF_D	373/	21
D3053	LL4148		DIODE	MINIMELF_D	378/	21
D3054	LL4148		DIODE	MINIMELF_D	340/	21
D3055	LL4148		DIODE	MINIMELF_D	345/	21
D3057	LL4148		DIODE	MINIMELF_D	146/	17
D3058	LL4148		DIODE	MINIMELF_D	193/	17
D3060	LL4148		DIODE	MINIMELF_D	193/	15
D3062	LL4148		DIODE	MINIMELF_D	121/	13
D3063	LL4148		DIODE	MINIMELF_D	287/	12
D3064	LL4148		DIODE	MINIMELF_D	132/	12
D3065	LL4148		DIODE	MINIMELF_D	132/	9
D3068	LL4148		DIODE	MINIMELF_D	32/	7
D3069	LL4148		DIODE	MINIMELF_D	38/	7
D3070	LL4148		DIODE	MINIMELF_D	70/	6
D3071	LL4148		DIODE	MINIMELF_D	75/	6

LEDs:

PART NO	PART NAME	DESCRIPTION	FUNCTION	PACKAGE	POS	X/Y
D3001	CQX 25N	LED 3mm rot klar	Inst1	led	11/	75
D3002	CQX 25N	LED 3mm rot klar	Inst2	led	30/	75
D3003	CQX 25N	LED 3mm rot klar	Inst3	led	49/	75
D3004	CQX 25N	LED 3mm rot klar	Inst4	led	68/	75
D3005	CQX 25N	LED 3mm rot klar	Osc1	led	240/	72
D3006	CQX 25N	LED 3mm rot klar	Osc2	led	245/	72
D3007	CQX 25N	LED 3mm rot klar	Osc3	led	251/	72
D3013	CQX 25N	LED 3mm rot klar	Global	led	144/	68
D3014	CQX 25N	LED 3mm rot klar	Mixer	led	240/	63
D3018	CQX 25N	LED 3mm rot klar	Multi	led	144/	54
D3019	CQX 25N	LED 3mm rot klar	Filt1	led	240/	54
D3020	CQX 25N	LED 3mm rot klar	Filt2	led	245/	54
D3025	CQX 25N	LED 3mm rot klar	Amp/Fx	led	240/	46
D3029	CQX 25N	LED 3mm rot klar	Edit	led	144/	41
D3032	CQX 25N	LED 3mm rot klar	ENV_F	led	240/	37
D3033	CQX 25N	LED 3mm rot klar	ENV_A	led	245/	37
D3034	CQX 25N	LED 3mm rot klar	ENV_3	led	251/	37
D3035	CQX 25N	LED 3mm rot klar	ENV_4	led	256/	37
D3040	CQX 25N	LED 3mm rot klar	Play	led	131/	31
D3044	CQX 25N	LED 3mm rot klar	LFO	led	240/	28
D3045	CQX 25N	LED 3mm rot klar	Sound	led	144/	27
D3056	CQX 25N	LED 3mm rot klar	Matrix	led	240/	20

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 3

LEDs: (continued)

PART NO	PART NAME	DESCRIPTION	FUNCTION	PACKAGE	POS	X/Y
D3059	CQX 25N	LED 3mm rot klar	STANDBY	led	406/	16
D3061	CQX 25N	LED 3mm rot klar	Shift	led	144/	14
D3066	CQX 25N	LED 3mm rot klar	Multimde	led	90/	7
D3067	CQX 25N	LED 3mm rot klar	Peek	led	112/	7

CAPACITORS:

PART NO	VALUE	DESCRIPTION		POS	X/Y
C3001	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	191/	71
C3002	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	201/	71
C3003	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	174/	71
C3004	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	184/	71
C3005	10u/16V	TANTAL 20%	SMD B	208/	71
C3006	1u5/25V	TANTAL 20%	SMD B	228/	69
C3007	27n	KER.VIELS.10% 63V	TYP2 X7R SMD0805	232/	69
C3008	820p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	234/	69
C3009	10u/16V	TANTAL 20%	SMD B	214/	69
C3010	10u/16V	TANTAL 20%	SMD B	208/	67
C3011	10u/16V	TANTAL 20%	SMD B	169/	64
C3012	10u/16V	TANTAL 20%	SMD B	207/	63
C3013	1n	KERKO 5% 63V	TYP1 COG SMD1206	191/	62
C3014	1n	KERKO 5% 63V	TYP1 COG SMD1206	201/	62
C3015	1n	KERKO 5% 63V	TYP1 COG SMD1206	174/	62
C3016	1n	KERKO 5% 63V	TYP1 COG SMD1206	184/	62
C3017	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	168/	59
C3018	150p	KER. NPO 5% 63V	TYP1 NPO SMD1206	179/	59
C3019	2n2	KER.VIELS.10% 63V	TYP2 X7R SMD0805	211/	59
C3020	10u/16V	TANTAL 20%	SMD B	163/	55
C3021	2n2	KER.VIELS.10% 63V	TYP2 X7R SMD0805	211/	55
C3022	470p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	123/	53
C3023	22n	KER.VIELS.10% 63V	TYP2 X7R SMD0805	214/	52
C3024	1n	KERKO 5% 63V	TYP1 COG SMD1206	168/	50
C3025	1u5/25V	TANTAL 20%	SMD B	219/	50
C3026	1n	KERKO 5% 63V	TYP1 COG SMD1206	179/	50
C3027	1u5/25V	TANTAL 20%	SMD B	213/	49
C3028	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	226/	48
C3029	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	166/	47
C3030	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	170/	47
C3031	27n	KER.VIELS.10% 63V	TYP2 X7R SMD0805	219/	47
C3032	220p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	96/	46
C3033	820p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	219/	44
C3034	1u5/25V	TANTAL 20%	SMD B	164/	44
C3035	1u5/25V	TANTAL 20%	SMD B	170/	44
C3036	220p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	82/	40
C3037	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	278/	36
C3038	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	272/	35
C3039	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	273/	33
C3040	27p	KERKO 5% 63V	TYP1 COG SMD0805	283/	31
C3041	220p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	80/	30
C3042	27p	KERKO 5% 63V	TYP1 COG SMD0805	276/	29
C3043	1u5/25V	TANTAL 20%	SMD B	357/	29
C3044	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	361/	29
C3045	1u5/25V	TANTAL 20%	SMD B	208/	28
C3046	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	214/	28
C3047	1u5/25V	TANTAL 20%	SMD B	297/	27
C3048	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	300/	27

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 4

CAPACITORS: (continued)

PART NO	VALUE	DESCRIPTION		POS	X/Y
C3049	1n	KER.VIELS.10% 63V	TYP2 X7R SMD0805	303/	27
C3050	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	111/	27
C3051	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	185/	27
C3052	680p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	357/	26
C3053	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	116/	25
C3054	470p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	177/	24
C3055	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	357/	23
C3056	47p	KERKO 5% 63V	TYP1 COG SMD0805	315/	20
C3057	47p	KERKO 5% 63V	TYP1 COG SMD0805	320/	20
C3058	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	223/	14
C3059	10u/16V	TANTAL 20%	SMD B	237/	13
C3060	1u5/25V	TANTAL 20%	SMD B	353/	13
C3061	470p	KER.VIELS.10% 63V	TYP2 X7R SMD0805	357/	13
C3062	2n7	KER.VIELS.10% 63V	TYP2 X7R SMD0805	360/	13
C3063	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	212/	12
C3064	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	232/	12
C3065	100u25V	ELKO RADIAL	RM2.5 d=7	109/	60
C3066	220u25V	ELKO RADIAL	RM3.5 d=8	194/	59
C3067	220u25V	ELKO RADIAL	RM3.5 d=8	203/	57
C3068	220u25V	ELKO RADIAL	RM3.5 d=8	162/	52
C3069	10u50V	ELKO RADIAL 20%	RM2.0 d=5	233/	34
C3070	10u50V	ELKO RADIAL 20%	RM2.0 d=5	144/	34
C3071	100u25V	ELKO RADIAL	RM2.5 d=7	183/	32
C3072	10u50V	ELKO RADIAL 20%	RM2.0 d=5	165/	32
C3073	10u50V	ELKO RADIAL 20%	RM2.0 d=5	171/	32
C3074	10u50V	ELKO RADIAL 20%	RM2.0 d=5	205/	31
C3075	100u25V	ELKO RADIAL	RM2.5 d=7	115/	28
C3076	10u50V	ELKO RADIAL 20%	RM2.0 d=5	232/	28
C3077	220u25V	ELKO RADIAL	RM3.5 d=8	212/	28
C3078	4u7/63V	ELKO RADIAL 20%	RM2.0 d=5	170/	25
C3079	10u50V	ELKO RADIAL 20%	RM2.0 d=5	205/	25
C3080	47u50V	ELKO RADIAL 20%	RM2.5 d=7	358/	21
C3081	220u25V	ELKO RADIAL	RM3.5 d=8	255/	20
C3082	10u50V	ELKO RADIAL 20%	RM2.0 d=5	114/	12
C3083	220u25V	ELKO RADIAL	RM3.5 d=8	357/	5
C3084	10u50V	ELKO RADIAL 20%	RM2.0 d=5	287/	3

RESISTORS:

PART NO	VALUE	DESCRIPTION		POS	X/Y
R3001	4R7	CHIP-WIDERST. TK200	5% 0.125W 0805	221/	71
R3002	4R7	CHIP-WIDERST. TK200	5% 0.125W 0805	224/	71
R3003	22K	MET.SMD.WID 0805	1% 0.125W TK50	190/	68
R3004	22K	MET.SMD.WID 0805	1% 0.125W TK50	202/	68
R3005	22K	MET.SMD.WID 0805	1% 0.125W TK50	173/	68
R3006	22K	MET.SMD.WID 0805	1% 0.125W TK50	185/	68
R3007	10K	CHIP-WIDERST. TK200	5% 0.1W 0603	283/	66
R3008	3K9	MET.SMD.WID 0805	1% 0.125W TK50	190/	66
R3009	3K9	MET.SMD.WID 0805	1% 0.125W TK50	202/	66
R3010	1K	CHIP-WIDERST. TK200	5% 0.1W 0603	279/	66
R3011	3K9	MET.SMD.WID 0805	1% 0.125W TK50	173/	66
R3012	3K9	MET.SMD.WID 0805	1% 0.125W TK50	185/	66
R3013	22R	CHIP-WIDERST. TK200	5% 0.1W 0603	164/	65
R3014	470R	CHIP-WIDERST. TK200	5% 0.1W 0603	231/	64
R3015	22R	CHIP-WIDERST. TK200	5% 0.1W 0603	278/	64
R3016	22R	CHIP-WIDERST. TK200	5% 0.1W 0603	286/	64

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 5

RESISTORS: (continued)

PART NO	VALUE	DESCRIPTION	POS	X/Y
R3017	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 189/ 64
R3018	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 202/ 64
R3019	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 172/ 64
R3020	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 185/ 64
R3021	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 357/ 64
R3022	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 231/ 63
R3023	3R9	KOHL-SCHICHTW. 0207	5%	0.25W TK200 126/ 62
R3024	3K9	MET.SMD.WID 0805	1%	0.125W TK50 195/ 62
R3025	3K9	MET.SMD.WID 0805	1%	0.125W TK50 197/ 62
R3026	3K9	MET.SMD.WID 0805	1%	0.125W TK50 178/ 62
R3027	3K9	MET.SMD.WID 0805	1%	0.125W TK50 180/ 62
R3028	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 231/ 62
R3029	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 359/ 62
R3030	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 269/ 61
R3031	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 294/ 61
R3032	470R	CHIP-WIDERST. TK200	5%	0.125W 0805 208/ 60
R3033	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 231/ 60
R3034	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 231/ 59
R3035	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 362/ 58
R3036	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 367/ 58
R3037	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 371/ 58
R3038	470R	CHIP-WIDERST. TK200	5%	0.125W 0805 208/ 58
R3039	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 231/ 57
R3040	47R	CHIP-WIDERST. TK200	5%	0.1W 0603 255/ 57
R3041	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 253/ 56
R3042	22K	MET.SMD.WID 0805	1%	0.125W TK50 167/ 56
R3043	22K	MET.SMD.WID 0805	1%	0.125W TK50 179/ 56
R3044	470R	CHIP-WIDERST. TK200	5%	0.125W 0805 208/ 55
R3045	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 296/ 55
R3046	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 268/ 55
R3047	3K9	MET.SMD.WID 0805	1%	0.125W TK50 167/ 54
R3048	3K9	MET.SMD.WID 0805	1%	0.125W TK50 179/ 54
R3049	47K	CHIP-WIDERST. TK200	5%	0.125W 0805 119/ 53
R3050	470R	CHIP-WIDERST. TK200	5%	0.125W 0805 208/ 53
R3051	1K	CHIP-WIDERST. TK200	5%	0.1W 0603 297/ 53
R3052	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 167/ 52
R3053	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 180/ 52
R3054	47K	CHIP-WIDERST. TK200	5%	0.125W 0805 234/ 52
R3055	470R	CHIP-WIDERST. TK200	5%	0.1W 0603 225/ 51
R3056	3K9	MET.SMD.WID 0805	1%	0.125W TK50 172/ 50
R3057	3K9	MET.SMD.WID 0805	1%	0.125W TK50 175/ 50
R3058	100R	CHIP-WIDERST. TK200	5%	0.125W 0805 247/ 50
R3059	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 377/ 50
R3060	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 206/ 49
R3061	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 268/ 48
R3062	47R	CHIP-WIDERST. TK200	5%	0.1W 0603 346/ 48
R3063	47R	CHIP-WIDERST. TK200	5%	0.1W 0603 348/ 48
R3064	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 295/ 48
R3065	100R	CHIP-WIDERST. TK200	5%	0.125W 0805 246/ 47
R3066	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 235/ 46
R3067	100R	CHIP-WIDERST. TK200	5%	0.125W 0805 246/ 45
R3068	270R	CHIP-WIDERST. TK200	5%	0.125W 0805 347/ 44
R3069	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 235/ 44
R3070	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 376/ 42
R3071	100R	CHIP-WIDERST. TK200	5%	0.125W 0805 247/ 42
R3072	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 349/ 42

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 6

RESISTORS: (continued)

PART NO	VALUE	DESCRIPTION	POS	X/Y
R3073	4R7	CHIP-WIDERST. TK200	5%	0.125W 0805 250/ 41
R3074	100R	CHIP-WIDERST. TK200	5%	0.125W 0805 258/ 41
R3075	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 269/ 40
R3076	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 294/ 40
R3077	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 269/ 39
R3078	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 377/ 39
R3079	330K	CHIP-WIDERST. TK200	5%	0.125W 0805 131/ 37
R3080	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 282/ 36
R3081	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 260/ 36
R3082	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 377/ 35
R3083	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 290/ 35
R3084	1K	CHIP-WIDERST. TK200	5%	0.1W 0603 287/ 35
R3085	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 289/ 35
R3086	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 248/ 34
R3087	1K	CHIP-WIDERST. TK200	5%	0.1W 0603 283/ 34
R3088	10M	CHIP-WIDERST. TK200	5%	0.125W 0805 279/ 34
R3089	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 260/ 33
R3090	330K	CHIP-WIDERST. TK200	5%	0.125W 0805 276/ 33
R3091	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 260/ 31
R3092	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 354/ 30
R3093	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 364/ 30
R3094	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 369/ 30
R3095	2R2	MET.SMD.WID. RC11	5%	0.25W 1206 180/ 30
R3096	470R	CHIP-WIDERST. TK200	5%	0.125W 0805 272/ 30
R3097	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 352/ 30
R3098	68R	CHIP-WIDERST. TK200	5%	0.125W 0805 321/ 29
R3099	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 371/ 28
R3100	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 260/ 28
R3101	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 246/ 28
R3102	22R	CHIP-WIDERST. TK200	5%	0.1W 0603 177/ 27
R3103	1K	CHIP-WIDERST. TK200	5%	0.1W 0603 268/ 27
R3104	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 366/ 27
R3105	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 367/ 27
R3106	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 246/ 26
R3107	68R	CHIP-WIDERST. TK200	5%	0.125W 0805 311/ 26
R3108	22K	CHIP-WIDERST. TK200	5%	0.125W 0805 284/ 26
R3109	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 257/ 24
R3110	10M	CHIP-WIDERST. TK200	5%	0.125W 0805 111/ 24
R3111	2R2	MET.SMD.WID. RC11	5%	0.25W 1206 185/ 24
R3112	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 255/ 24
R3113	22K	CHIP-WIDERST. TK200	5%	0.125W 0805 284/ 23
R3114	68R	CHIP-WIDERST. TK200	5%	0.125W 0805 312/ 23
R3115	15R	KOHLE-SCHICHTW. 0207	5%	0.25W TK200 209/ 23
R3116	1M	CHIP-WIDERST. TK200	5%	0.125W 0805 120/ 21
R3117	2K7	CHIP-WIDERST. TK200	5%	0.125W 0805 404/ 20
R3118	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 228/ 18
R3119	47K	CHIP-WIDERST. TK200	5%	0.125W 0805 209/ 17
R3120	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 288/ 17
R3121	22K	CHIP-WIDERST. TK200	5%	0.125W 0805 106/ 16
R3122	4K7	KOHLE-SCHICHTW. 0207	5%	0.25W TK200 82/ 15
R3123	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 251/ 15
R3124	47K	CHIP-WIDERST. TK200	5%	0.125W 0805 209/ 15
R3125	4K7	CHIP-WIDERST. TK200	5%	0.1W 0603 246/ 14
R3126	47K	CHIP-WIDERST. TK200	5%	0.125W 0805 217/ 12
R3127	10K	CHIP-WIDERST. TK200	5%	0.1W 0603 116/ 10

----- COMPONENT LISTING by Part Number -----

PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 7

INDUCTORS:

PART NO	PART VALUE	DESCRIPTION	PACKAGE	POS	X/Y
I3001	Fer.07	742 792 07 / 0805 Ferrite 100 Ohm	smd_0805	265/	59
I3002	Fer.151	742 792 151 / 1206 Ferrite 70 Ohm	smd_1206	95/	51
I3003	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	199/	50
I3004	Fer.151	742 792 151 / 1206 Ferrite 70 Ohm	smd_1206	81/	44
I3005	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	214/	44
I3006	Fer.07	742 792 07 / 0805 Ferrite 100 Ohm	smd_0805	266/	43
I3007	Fer.P.3	742 750 3 6-Loch Ferriteperle	i_ferritper	220/	38
I3008	Fer.151	742 792 151 / 1206 Ferrite 70 Ohm	smd_1206	81/	35
I3009	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	175/	32
I3010	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	164/	29
I3011	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	362/	26
I3012	4u7	FASTRON TYP SMCC SETRON 29617	i_smcc	218/	25
I3013	Fer.07	742 792 07 / 0805 Ferrite 100 Ohm	smd_0805	323/	25
I3014	4u7	FASTRON TYP SMCC SETRON 29617	i_smcc	227/	24
I3015	4u7	FASTRON TYP SMCC SETRON 29617	i_smcc	292/	23
I3016	Fer.12	742 792 12 / 1206 Ferrite 150 Ohm	smd_1206	213/	23

XTAL's:

PART NO	PART VALUE	DESCRIPTION	PACKAGE	POS	X/Y
X3001	32.768KHz	UHR-QUARZ 3x8	quarz_3x8	279/	31
X3002	14MHZ31818	QUARZ HC49H4 SMD	hc49h4_smd	319/	15

CONNECTORS:

PART NO	PART NAME	DESCRIPTION	FUNCTION	POS	X/Y
CN3001		Anschl. Rasterstgl.	DOUT	342/	72
CN3002	Steckverbindungssatz	4-pol, zum einlöten	PHONES	81/	58
CN3003	LOETAUGE		+	103/	54
CN3006	LOETAUGE		-	103/	27
CN3007	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	Phones	90/	23
CN3008	Stiftl. 2p.		RESET	241/	12
CN3010	Stiftw. 34p/180°		FRONT-BACK	131/	69
CN3012	Stiftw. 14p/180	SETRON 13758	DISPLAY	134/	36
CN3013	Stiftw. 10p/180	SETRON 13757	DEBUG	265/	35

SWITCHs:

PART NO	PART NAME	DESCRIPTION	FUNCTION	POS	X/Y
SW3001	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Inst1	11/	69
SW3002	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Inst2	30/	69
SW3003	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Inst3	49/	69
SW3004	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Inst4	68/	69
SW3005	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Global	153/	68
SW3006	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Multi	153/	54
SW3007	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Up	192/	51
SW3008	Encod w. Detend	ALBS 401694	Play	109/	41
SW3009	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Edit	153/	41
SW3010	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Left	182/	41
SW3011	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Right	202/	41
SW3012	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Down	192/	31
SW3013	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Sound	153/	27
SW3014	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Play	125/	24
SW3015	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Shift	153/	14
SW3016	Encod w/o Detend	ALBS 401693	Value2	58/	12
SW3017	Encod w/o Detend	ALBS 401693	Value1	21/	12

----- COMPONENT LISTING by Part Number -----
 PCB Name: MQMB11 MICRO-Q MAIN/FRONTBOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 8

SWITCHs: (continued)

PART NO	PART NAME	DESCRIPTION	FUNCTION	POS	X/Y
SW3018	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	On/Off	399/	9
SW3019	Encod w/o Detend	ALBS 401693	Matrix1	267/	8
SW3020	Encod w/o Detend	ALBS 401693	Matrix2	303/	8
SW3021	Encod w/o Detend	ALBS 401693	Matrix3	339/	8
SW3022	Encod w/o Detend	ALBS 401693	Matrix4	375/	8
SW3023	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Peek	121/	7
SW3024	Taster 6x6 H=5mm	SKHHAR,260GF,Alps	Multimde	99/	7

MECHANICAL's:

PART NO	PART NAME	DESCRIPTION	FUNCTION	POS	X/Y
M3005	Heatsink	FK237 SA-220V		121/	59
M3006	Heatsink	SK129STIC TO220		222/	31

MISCELLANEOUS:

PART NO	PART NAME	DESCRIPTION	POS	X/Y
F3001		Solderprint Mark	21/	73
F3002		Solderprint Mark	395/	73
F3003		Feducialmark	395/	60
F3004		Feducialmark	5/	15
F3005		Solderprint Mark	21/	7
F3006		Solderprint Mark	395/	7
TP10	TDI	Test Point	356/	61
TP11	TCK	Test Point	355/	52
TP12	TDO	Test Point	357/	52
TP13	DE	Test Point	362/	36
TP14	TMS	Test Point	354/	59
TP15	TRST	Test Point	357/	59
TP34	HBCLK	Test Point	349/	45
TP35	CLK	Test Point	365/	36

TECHNICAL DOCUMENTATION

Prototype Documention

PROJECT: Micro-Q

PART : Back PCB
REV : 1.1
DATE : 12.07.00

Document-Name: d_mqbp11.PDF

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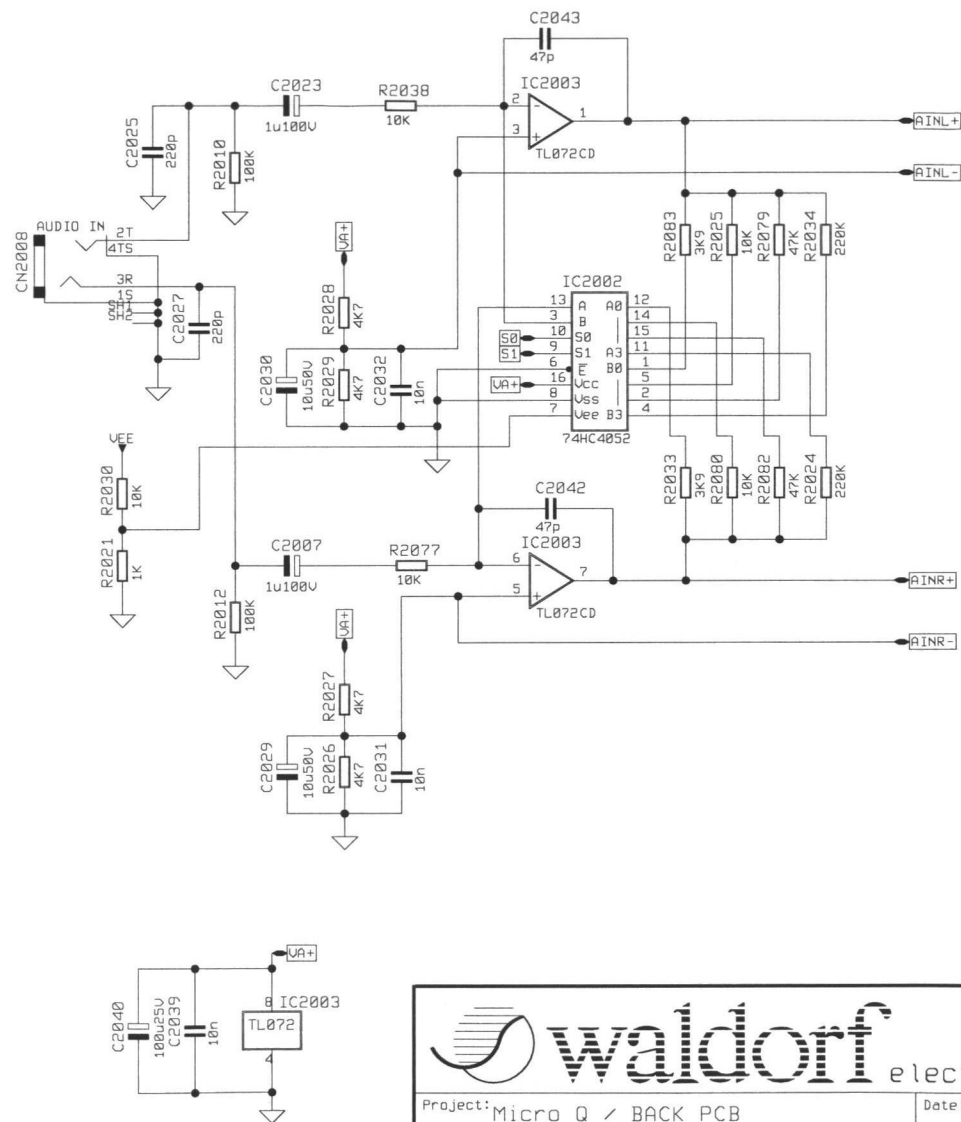
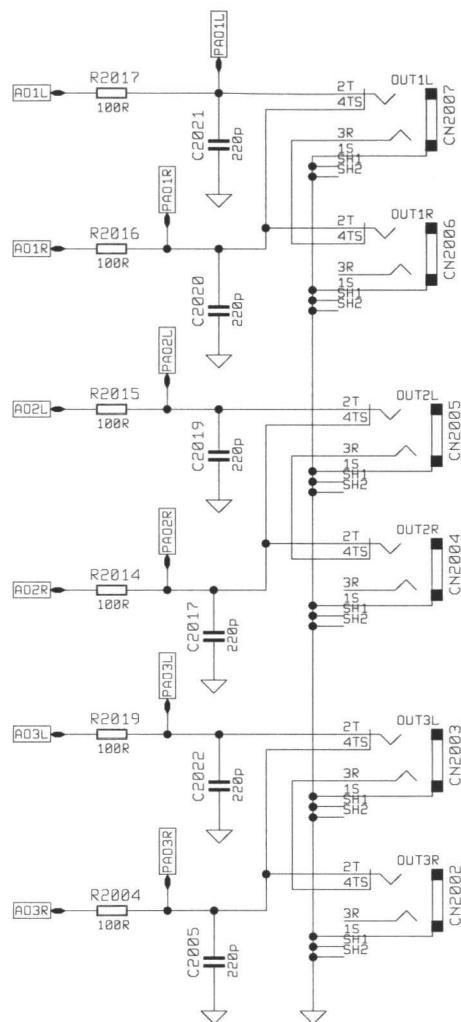
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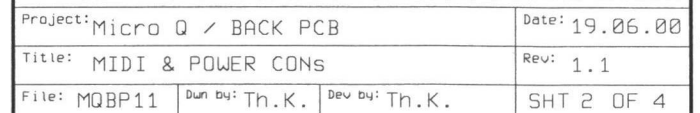
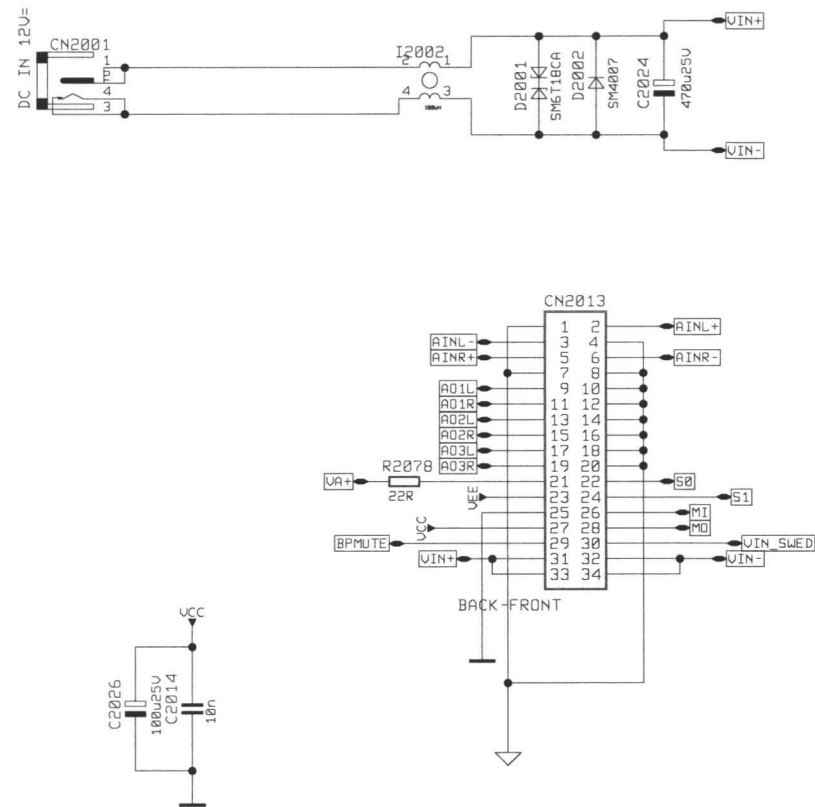
Schematics / Schaltbilder

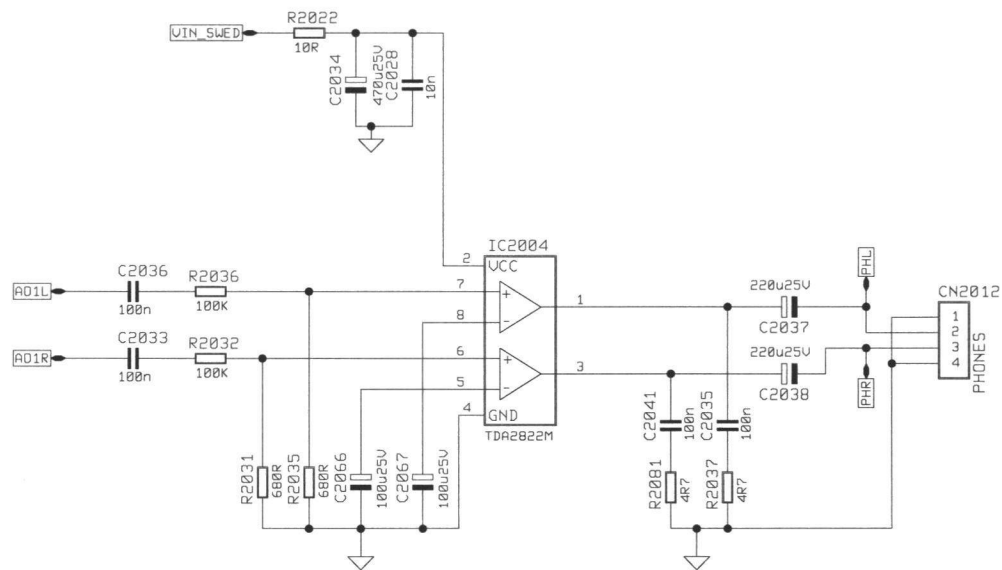
Component Layout / Bestückungsplan


Part List / Bauteilliste

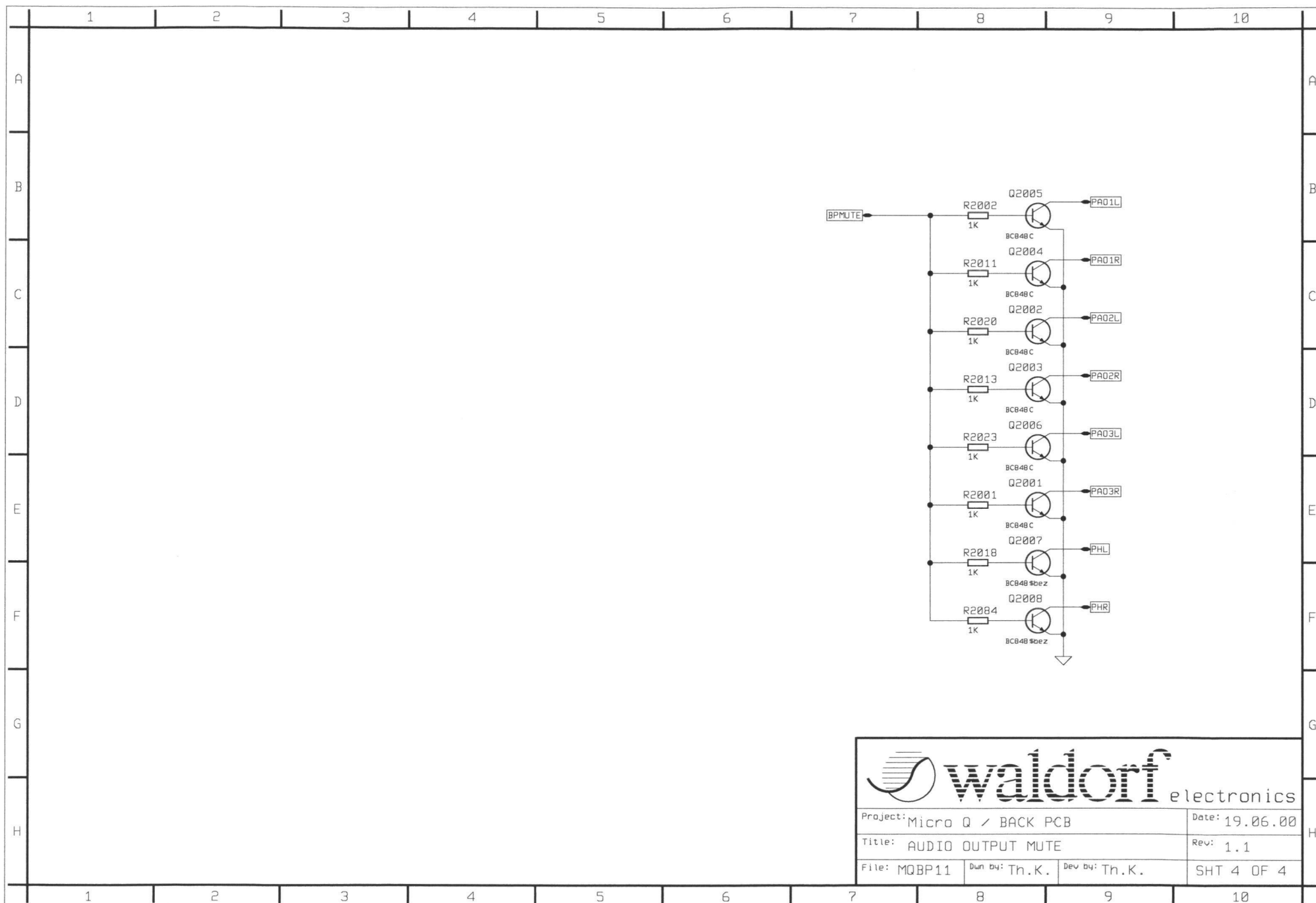


			
Project: Micro Q / BACK PCB			Date: 19.06.00
Title: Audio In/Out			Rev: 1.1
File: MQBP11	Drawn by: Th.K.	Dev by: Th.K.	SHT 1 OF 4

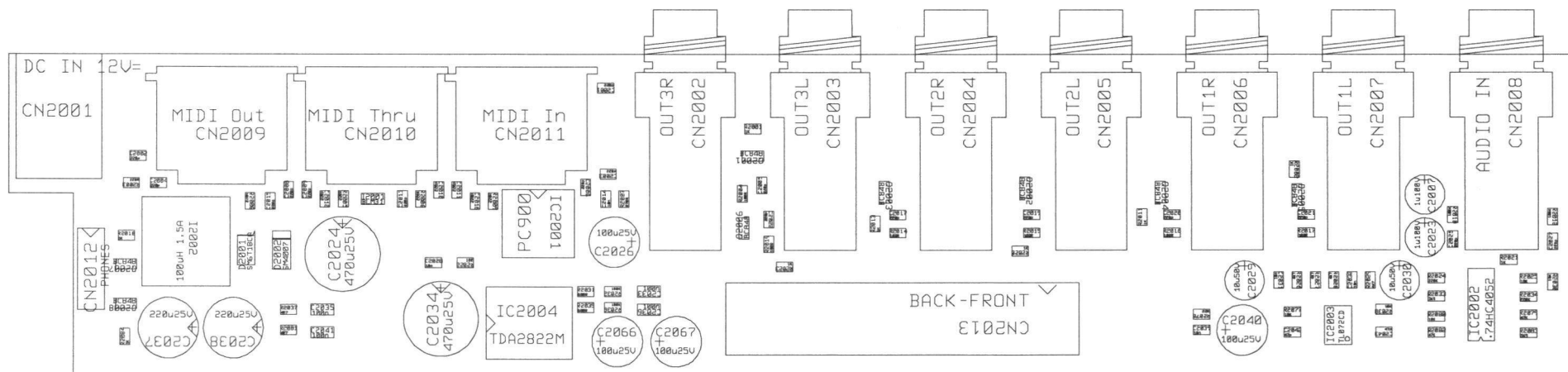




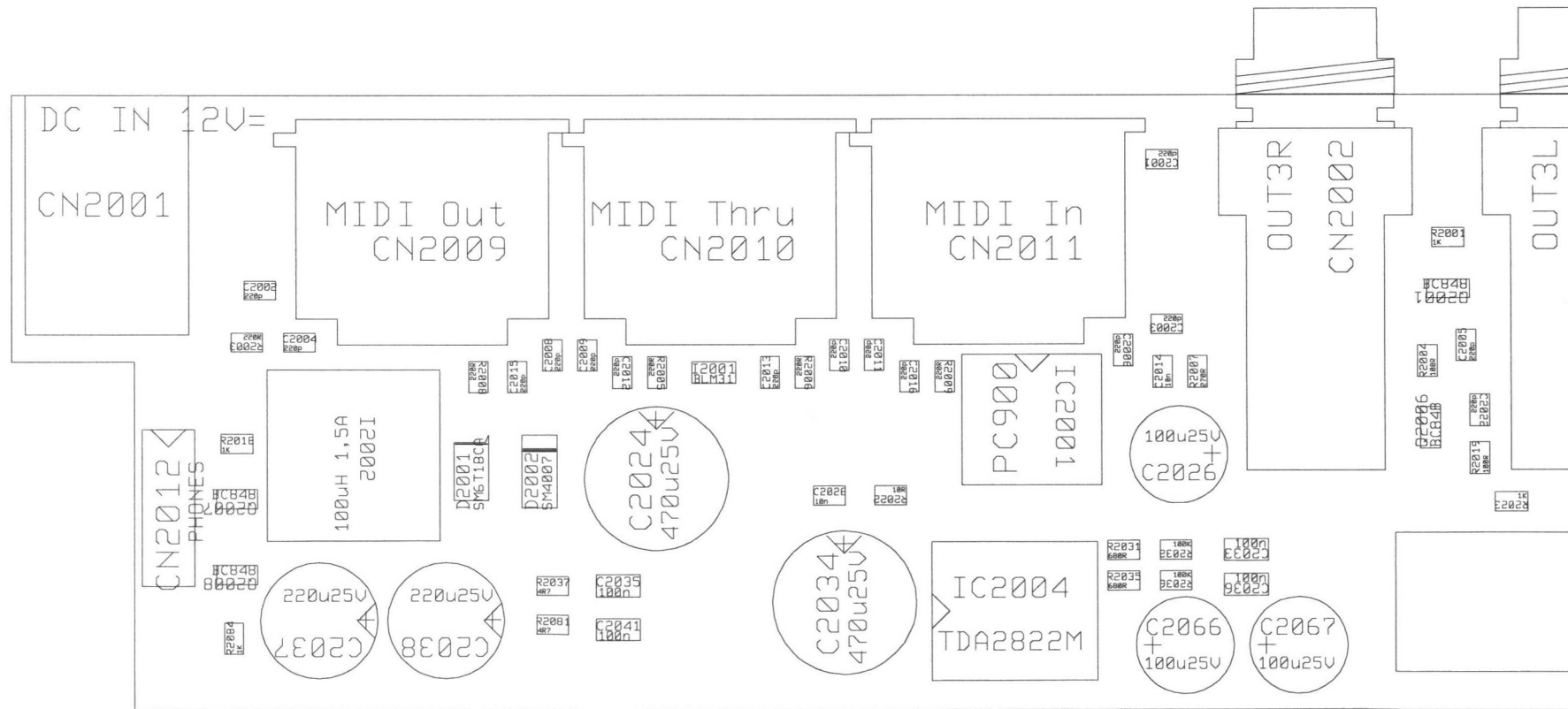
			
Project: Micro Q / BACK PCB			Date: 19.06.00
Title: HEADPHONE AMP			Rev: 1.1
File: MQBP11	Own by: Th.K.	Dev by: Th.K.	SHT 3 OF 4



Bauteilseite

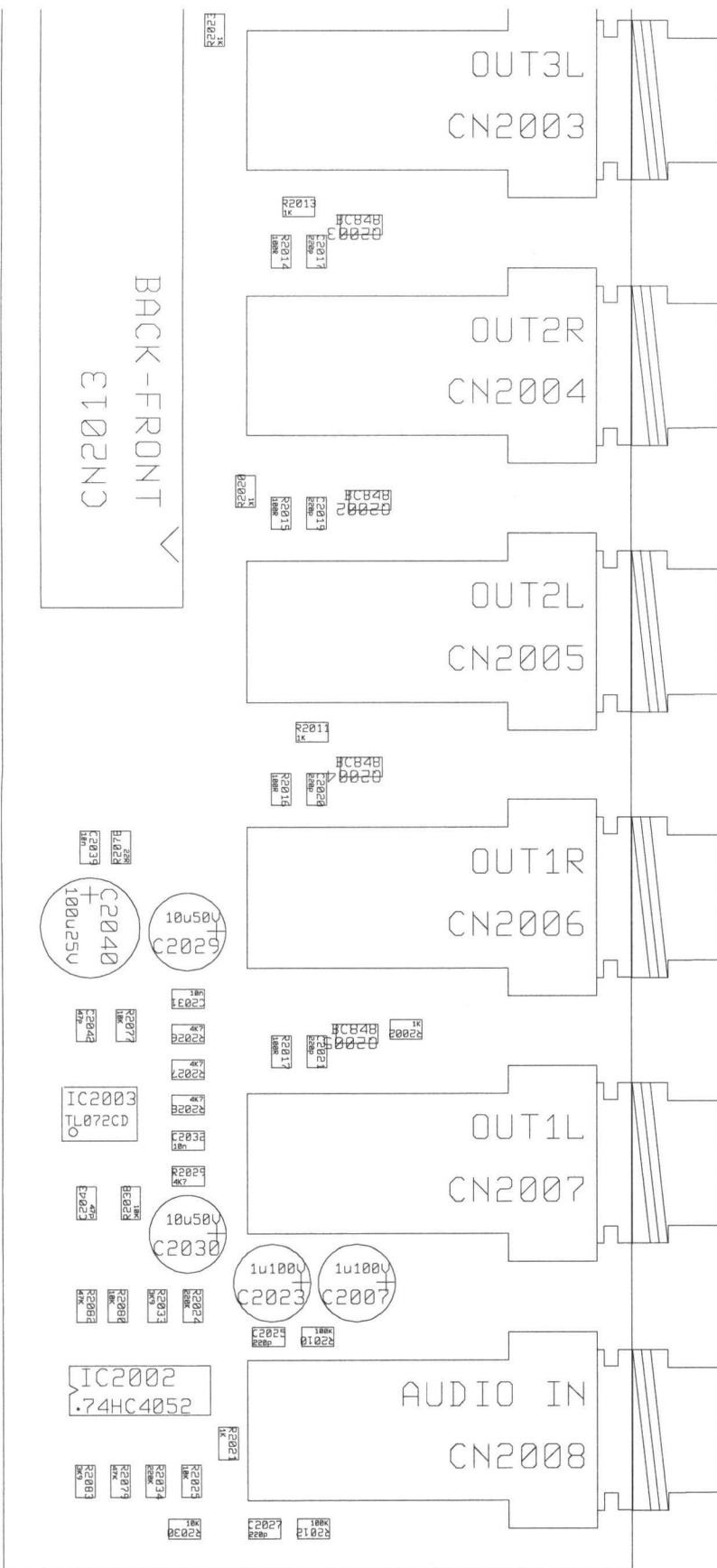


Bestückungsplan MQBP11 22.06.00
 Leiterpl. Rev. 1.1 Bestückungs



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----- COMPONENT LISTING by Part Number -----
 PCB Name: MQBP11 MICRO-Q BACKPANEL-BOARD Rev:1.1 Comp. Layout Rev: 1.1 Page: 1

ICs:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
IC2001	PC900		OPTO-COUPLER	dil6	70/	23
IC2002	74HC4052		Analog Multiplexer	so16	206/	9
IC2003	TL072CD		DUAL OP-AMP	so8	186/	6
IC2004	TDA2822M		POWER DUAL OP-AMP	dil8	69/	3

TRANSISTORS:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
Q2001	BC848	C	NPN TRANSISTOR SMD	sot23_3	104/	30
Q2002	BC848	C	NPN TRANSISTOR SMD	sot23_3	142/	26
Q2003	BC848	C	NPN TRANSISTOR SMD	sot23_3	122/	25
Q2004	BC848	C	NPN TRANSISTOR SMD	sot23_3	161/	25
Q2005	BC848	C	NPN TRANSISTOR SMD	sot23_3	180/	25
Q2006	BC848	C	NPN TRANSISTOR SMD	sot23_3	103/	20
Q2007	BC848	C	NPN TRANSISTOR SMD	sot23_3	16/	15
Q2008	BC848	C	NPN TRANSISTOR SMD	sot23_3	16/	10

DIODEs:

PART NO	PART NAME	SUFFIX	DESCRIPTION	PACKAGE	POS	X/Y
D2001	SM6T18CA		TRANSIL-DIODE	SMB	33/	17
D2002	SM4007		DIODE	MELF_D	38/	17

CAPACITORS:

PART NO	VALUE	DESCRIPTION	POS	X/Y
C2001	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	83/	40
C2002	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	18/	30
C2003	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	84/	28
C2004	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	21/	26
C2005	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	105/	26
C2006	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	81/	26
C2007	1u100V	ELKO RADIAL 20% RM2.0 d=5	198/	26
C2008	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	39/	25
C2009	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	41/	25
C2010	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	60/	25
C2011	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	62/	25
C2012	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	44/	24
C2013	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	55/	24
C2014	10n	KER.VIELSCH.10% 63V TYP2 X7R SMD0805	83/	24
C2015	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	36/	24
C2016	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	65/	24
C2017	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	124/	22
C2019	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	143/	22
C2020	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	163/	22
C2021	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	181/	22
C2022	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	106/	21
C2023	1u100V	ELKO RADIAL 20% RM2.0 d=5	198/	20
C2024	470u25V	ELKO RADIAL RM5 d=10	47/	19
C2025	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	202/	18
C2026	100u25V	ELKO RADIAL RM2.5 d=7	86/	18
C2027	220p	KER.VIELS.10% 63V TYP2 X7R SMD0805	215/	18
C2028	10n	KER.VIELSCH.10% 63V TYP2 X7R SMD0805	59/	15
C2029	10u50V	ELKO RADIAL 20% RM2.0 d=5	173/	14
C2030	10u50V	ELKO RADIAL 20% RM2.0 d=5	195/	14
C2031	10n	KER.VIELSCH.10% 63V TYP2 X7R SMD0805	178/	13

----- COMPONENT LISTING by Part Number -----
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CAPACITORS: (continued)

PART NO	VALUE	DESCRIPTION		POS	X/Y
C2032	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	188/	13
C2033	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	89/	11
C2034	470u25V	ELKO RADIAL	RM5 d=10	60/	10
C2035	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	44/	9
C2036	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	89/	9
C2037	220u25V	ELKO RADIAL	RM3.5 d=8	22/	6
C2038	220u25V	ELKO RADIAL	RM3.5 d=8	31/	6
C2039	10n	KER.VIELSCH.10% 63V	TYP2 X7R SMD0805	167/	6
C2040	100u25V	ELKO RADIAL	RM2.5 d=7	171/	6
C2041	100n	KER. VIELSCH. 15%	TYP2 X7R SMD1206	44/	5
C2042	47p	KERKO 5% 63V	TYP1 COG SMD0805	180/	5
C2043	47p	KERKO 5% 63V	TYP1 COG SMD0805	192/	5
C2066	100u25V	ELKO RADIAL	RM2.5 d=7	84/	4
C2067	100u25V	ELKO RADIAL	RM2.5 d=7	92/	4

RESISTORS:

PART NO	VALUE	DESCRIPTION		POS	X/Y
R2001	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	104/	34
R2002	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	180/	28
R2003	220R	CHIP-WIDERST. TK200	5% 0.125W 0805	17/	26
R2004	100R	MET.SMD.WID 0805	1% 0.125W TK50	103/	25
R2005	220R	CHIP-WIDERST. TK200	5% 0.125W 0805	47/	24
R2006	220R	CHIP-WIDERST. TK200	5% 0.125W 0805	57/	24
R2007	270R	CHIP-WIDERST. TK200	5% 0.125W 0805	86/	24
R2008	220R	CHIP-WIDERST. TK200	5% 0.125W 0805	34/	24
R2009	220R	CHIP-WIDERST. TK200	5% 0.125W 0805	68/	24
R2010	100K	CHIP-WIDERST. TK200	5% 0.125W 0805	202/	22
R2011	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	159/	22
R2012	100K	CHIP-WIDERST. TK200	5% 0.125W 0805	215/	22
R2013	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	121/	21
R2014	100R	MET.SMD.WID 0805	1% 0.125W TK50	124/	19
R2015	100R	MET.SMD.WID 0805	1% 0.125W TK50	143/	19
R2016	100R	MET.SMD.WID 0805	1% 0.125W TK50	163/	19
R2017	100R	MET.SMD.WID 0805	1% 0.125W TK50	181/	19
R2018	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	16/	19
R2019	100R	MET.SMD.WID 0805	1% 0.125W TK50	106/	18
R2020	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	141/	17
R2021	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	209/	16
R2022	10R	CHIP-WIDERST. TK200	5% 0.125W 0805	64/	15
R2023	1K	CHIP-WIDERST. TK200	5% 0.125W 0805	108/	15
R2024	220K	CHIP-WIDERST. TK200	5% 0.125W 0805	200/	13
R2025	10K	MET.SMD.WID 0805	1% 0.125W TK50	212/	13
R2026	4K7	CHIP-WIDERST. TK200	5% 0.125W 0805	180/	13
R2027	4K7	CHIP-WIDERST. TK200	5% 0.125W 0805	183/	13
R2028	4K7	CHIP-WIDERST. TK200	5% 0.125W 0805	185/	13
R2029	4K7	CHIP-WIDERST. TK200	5% 0.125W 0805	190/	13
R2030	10K	MET.SMD.WID 0805	1% 0.125W TK50	215/	12
R2031	680R	CHIP-WIDERST. TK200	5% 0.125W 0805	81/	11
R2032	100K	CHIP-WIDERST. TK200	5% 0.125W 0805	84/	11
R2033	3K9	MET.SMD.WID 0805	1% 0.125W TK50	200/	11
R2034	220K	CHIP-WIDERST. TK200	5% 0.125W 0805	212/	10
R2035	680R	CHIP-WIDERST. TK200	5% 0.125W 0805	81/	9
R2036	100K	CHIP-WIDERST. TK200	5% 0.125W 0805	84/	9
R2037	4R7	CHIP-WIDERST. TK200	5% 0.125W 0805	39/	9
R2038	10K	MET.SMD.WID 0805	1% 0.125W TK50	192/	9

----- COMPONENT LISTING by Part Number -----

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RESISTORS: (continued)

PART NO	VALUE	DESCRIPTION				POS	X/Y
R2077	10K	MET.SMD.WID 0805	1%	0.125W	TK50	180/	8
R2078	22R	CHIP-WIDERST. TK200	5%	0.125W	0805	167/	8
R2079	47K	CHIP-WIDERST. TK200	5%	0.125W	0805	212/	8
R2080	10K	MET.SMD.WID 0805	1%	0.125W	TK50	200/	8
R2081	4R7	CHIP-WIDERST. TK200	5%	0.125W	0805	39/	6
R2082	47K	CHIP-WIDERST. TK200	5%	0.125W	0805	200/	5
R2083	3K9	MET.SMD.WID 0805	1%	0.125W	TK50	212/	5
R2084	1K	CHIP-WIDERST. TK200	5%	0.125W	0805	16/	5

INDUCTORS:

PART NO	PART VALUE	DESCRIPTION		PACKAGE	POS	X/Y
I2001	BLM31	MUR BLM31A700	SETRON 41430	smd_1206	51/	24
I2002	100uH 1,5A	WE-VBX100W3	Würth	i_we_vbx	24/	18

CONNECTORS:

PART NO	PART NAME	DESCRIPTION	FUNCTION	POS	X/Y
CN2001	Kleinspgsbuchse	DCB520,EVE	DC IN 12V=	6/	45
CN2002	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT3R	94/	42
CN2003	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT3L	114/	42
CN2004	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT2R	133/	42
CN2005	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT2L	152/	42
CN2006	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT1R	171/	42
CN2007	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	OUT1L	189/	42
CN2008	KLINKE STEREO m. Schalt	d=6.3mm H=6.5mm	AUDIO IN	208/	42
CN2009	MAB5SH MIDI-BUCHSE		MIDI Out	29/	40
CN2010	MAB5SH MIDI-BUCHSE		MIDI Thru	50/	40
CN2011	MAB5SH MIDI-BUCHSE		MIDI In	71/	40
CN2012	Stiftleiste f. Steckver	4-pol, gerade	PHONES	11/	18
CN2013	Stiftw. 34p/180°		BACK-FRONT	145/	9

MISCELLANEOUS:

PART NO	PART NAME	DESCRIPTION	POS	X/Y
F2001		Solderprint Mark	11/	36
F2002		Solderprint Mark	216/	36
F2003		Feducialmark	213/	28
F2004		Feducialmark	26/	10
F2005		Solderprint Mark	11/	3
F2006		Solderprint Mark	216/	3